DOCUMENT RESUME

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DESCRIPTORS *Career Education; *Curriculum Planning; *Occupational Clusters

ABSTRACT

The 15 occupational clusters (transportation, fine arts and humanities, communications and media, personal service occupations, construction, hospitality and recreation, health occupations, marine science occupations, consumer and homemaking-related occupations, agribusiness and natural resources, environment, public service, business and office occupations, manufacturing, and marketing and distribution) are presented in the form of branching tree diagrams showing a breakdown to four levels of detail for each cluster. (SA)

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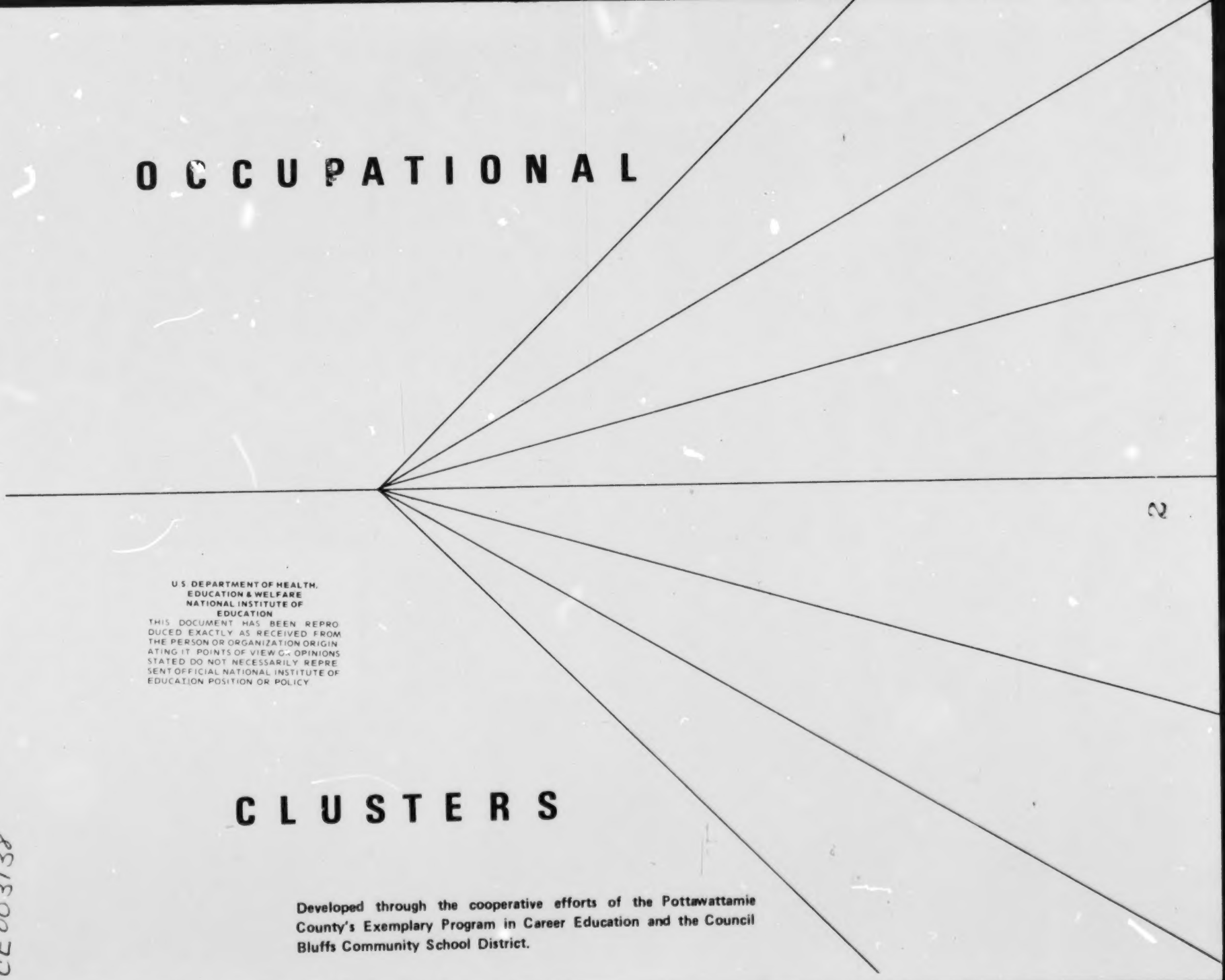
OCCUPATIONAL



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CLUSTERS

Developed through the cooperative efforts of the Pottawattamie County's Exemplary Program in Career Education and the Council Bluffs Community School District.

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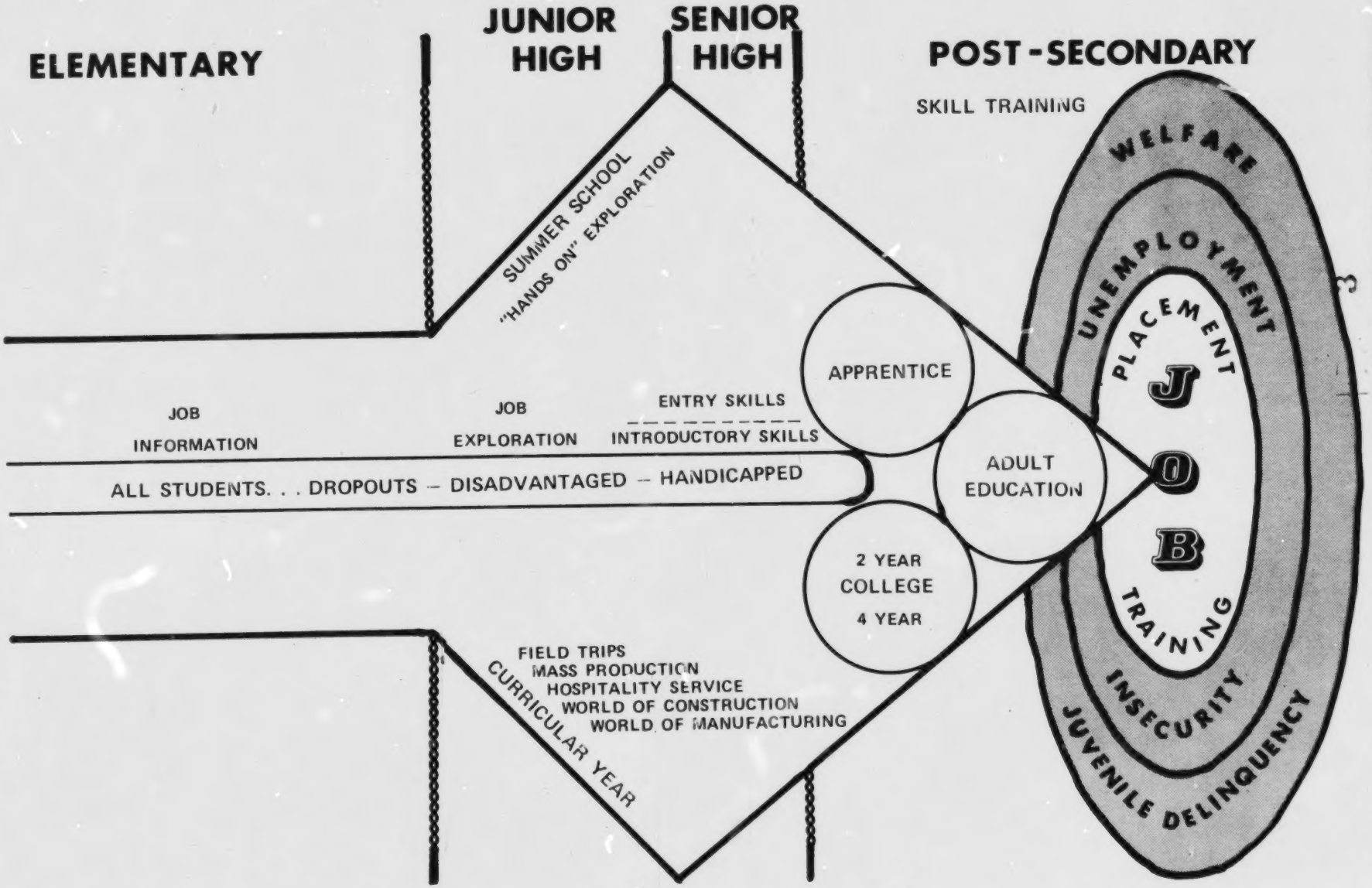
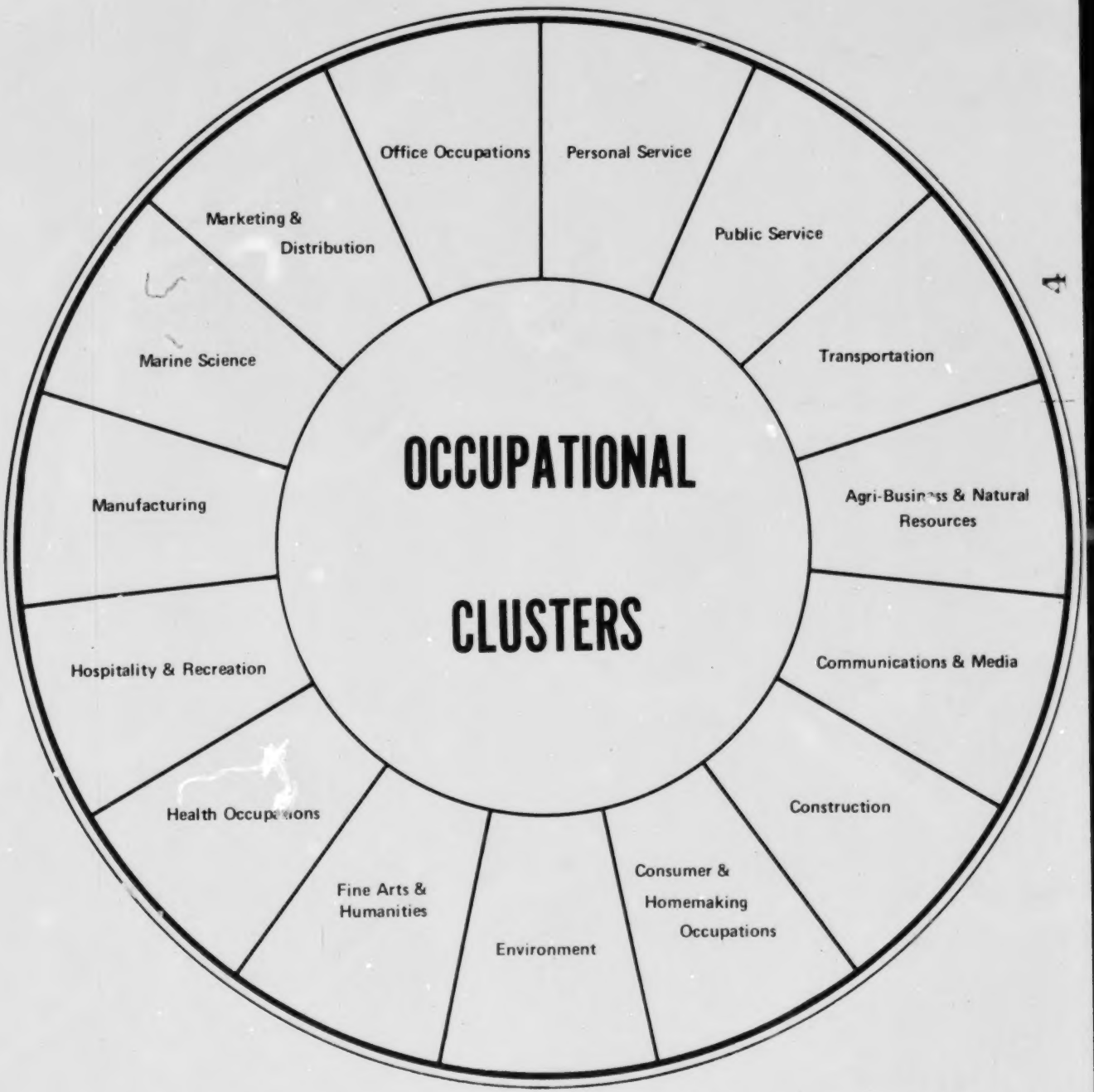
EXEMPLARY PROJECT IN CAREER EDUCATION

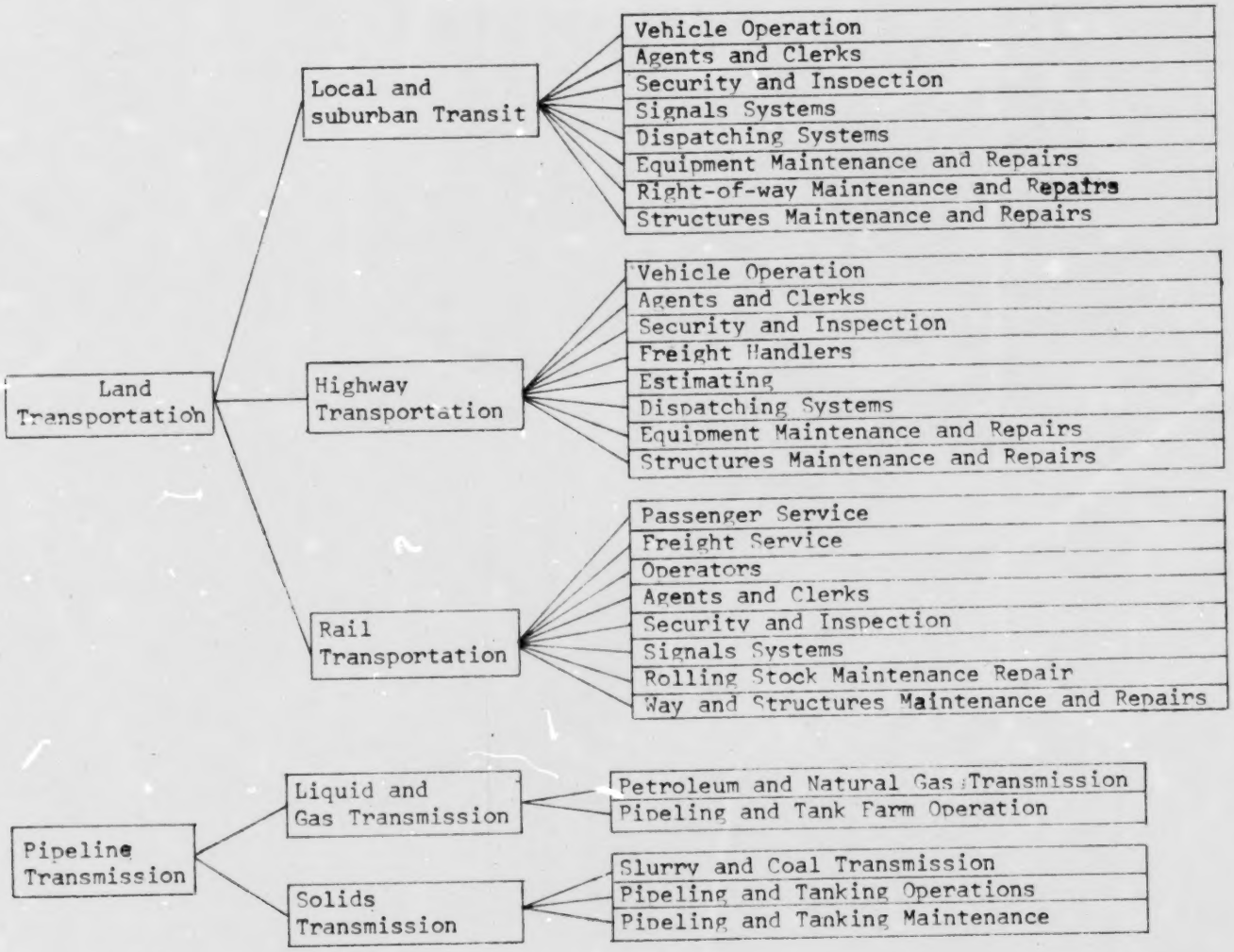


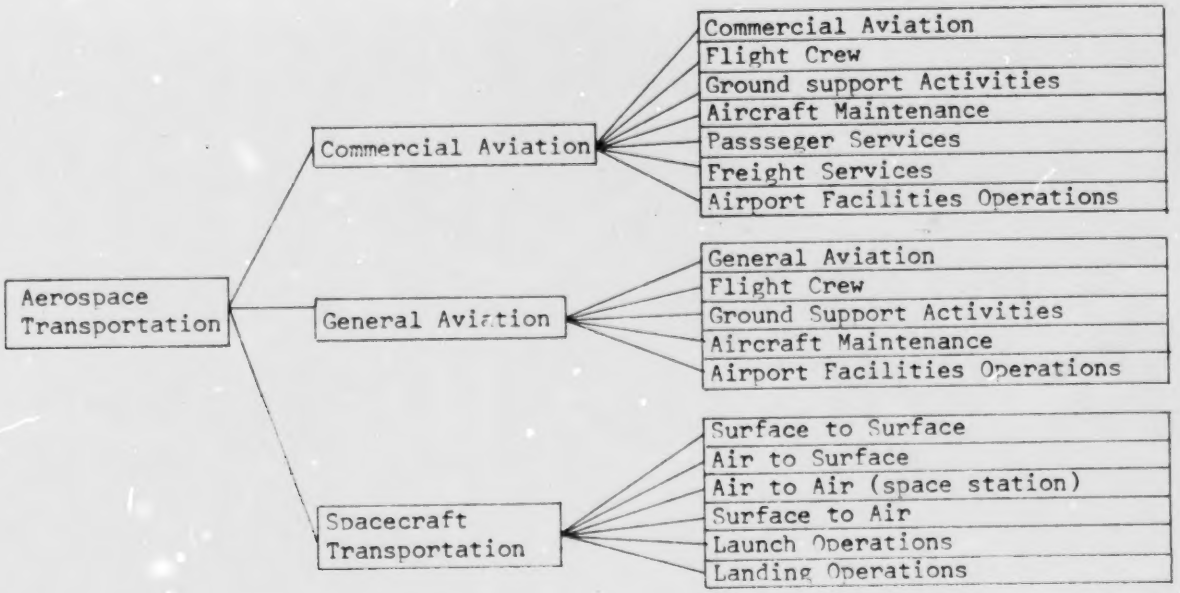

OCCUPATIONAL
CLUSTERS
Office Occupations
Personal Service
Public Service
Transportation
Agri-Business & Natural Resources
Communications & Media
Construction
Consumer & Homemaking Occupations
Environment
Fine Arts & Humanities
Health Occupations
Hospitality & Recreation
Manufacturing
Marine Science
Marketing & Distribution

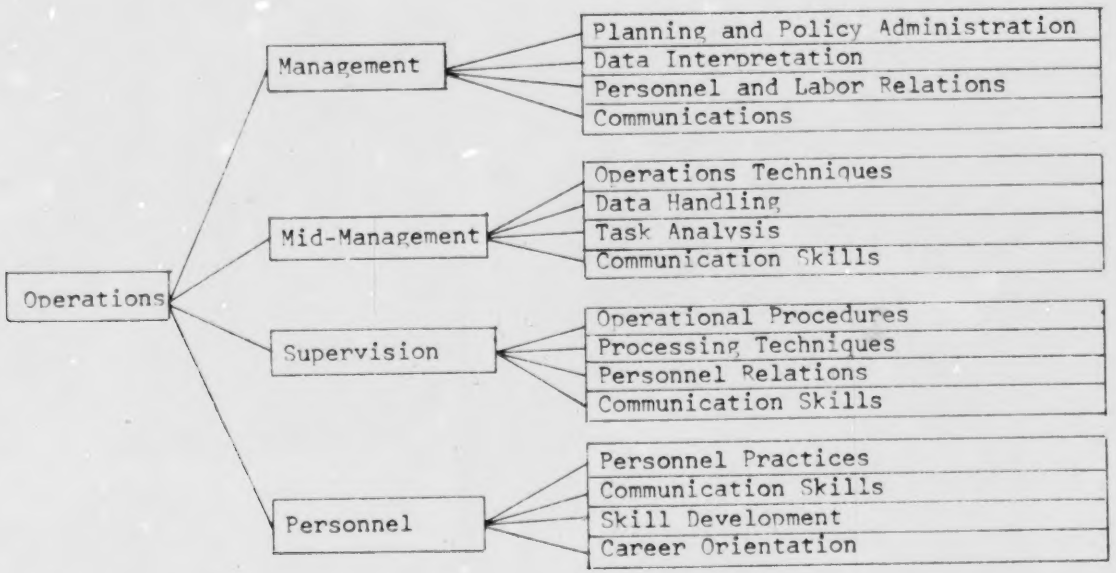
Cluster Index

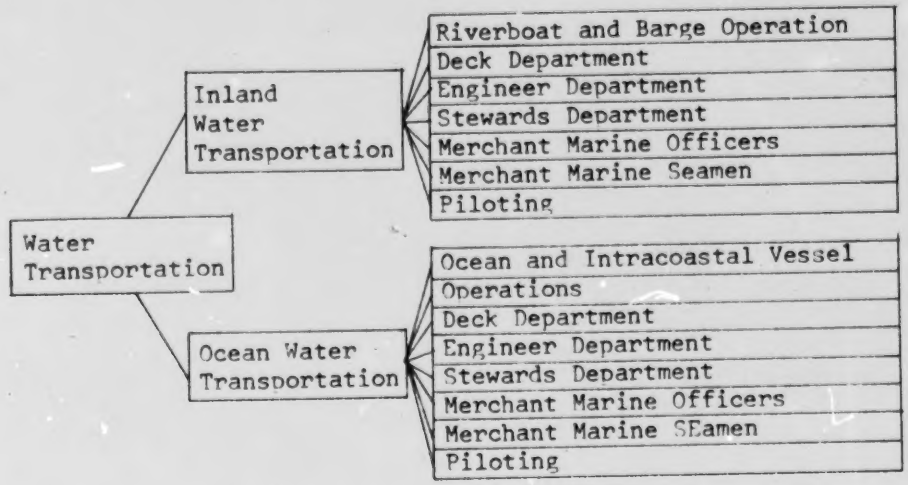
Transportation A-1, 2, 3
Fine Arts and Humanities B-1
Communication and Media C-1, 2
Personal Services Occupations D-1, 2, 3
Construction E-1, 2, 3
Hospitality and Recreation F-1, 2, 3, 4
Health Occupations G-1, 2, 3, 4, 5
Marine Science Occupations H-1, 2, 3, 4, 5
Consumer and Homehaming--Related Occupations I-1, 2, 3, 4
Agri-Business and Natural Resources J-1, 2, 3, 4, 5
Environment K-1, 2, 3, 4, 5
Public Service L-1, 2, 3, 4, 5, 6
Business and Office Occupations M-1, 2, 3
Manufacturing N-1, 2
Marketing and Distribution Occupations O-1, 2, 3

CLUSTER FOR TRANSPORTATION

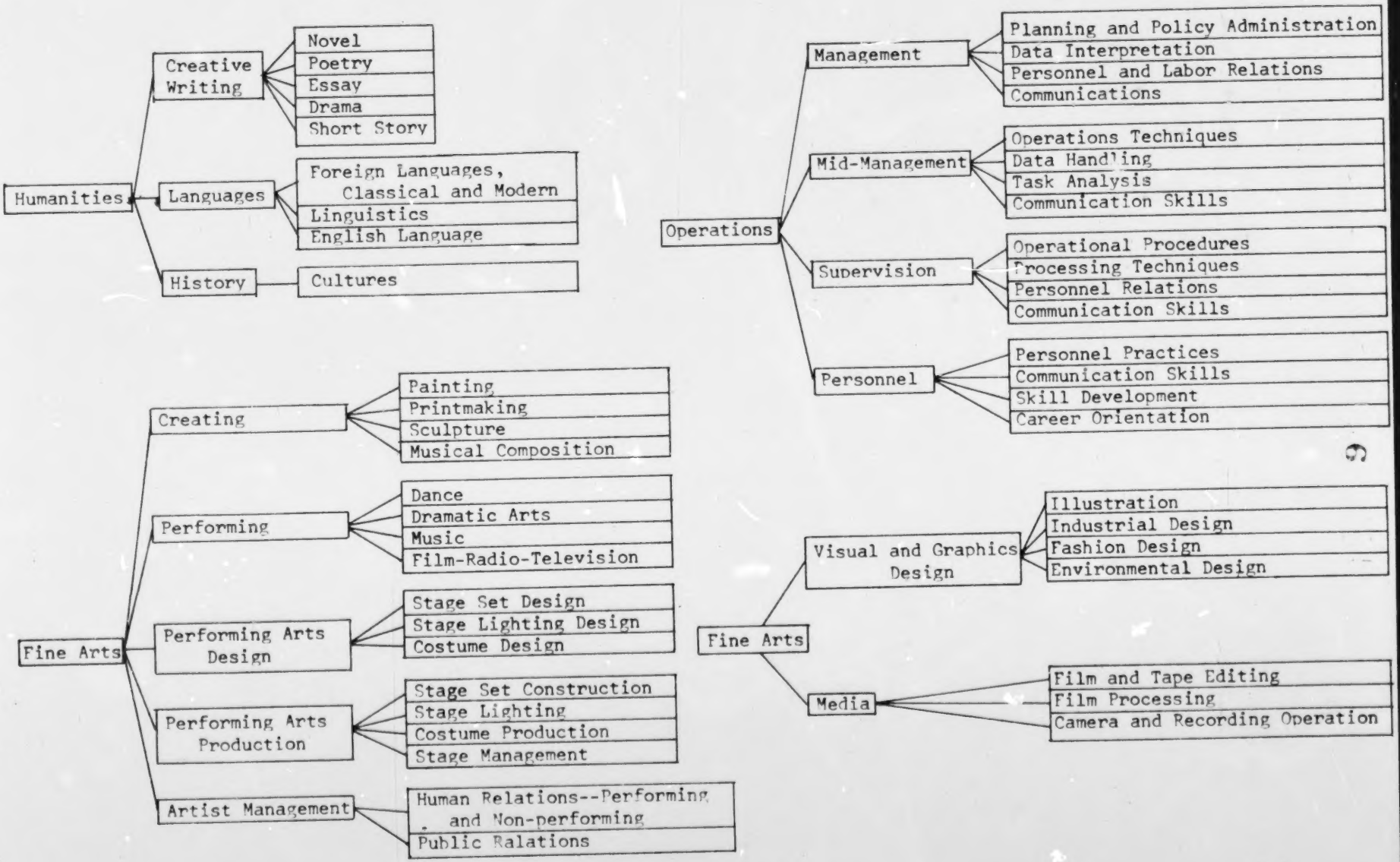



Aerospace Transportation
Commercial Aviation
Commercial Aviation
Flight Crew
Ground support Activities
Aircraft Maintenance
Passseger Services
Freight Services
Airport Facilities Operations
General Aviation
General Aviation
Flight Crew
Ground Support Activities
Aircraft Maintenance
Airport Facilities Operations
Spacecraft Transportation
Surface to Surface
Air to Surface
Air to Air (space station)
Surface to Air
Launch Operations
Landing Operations

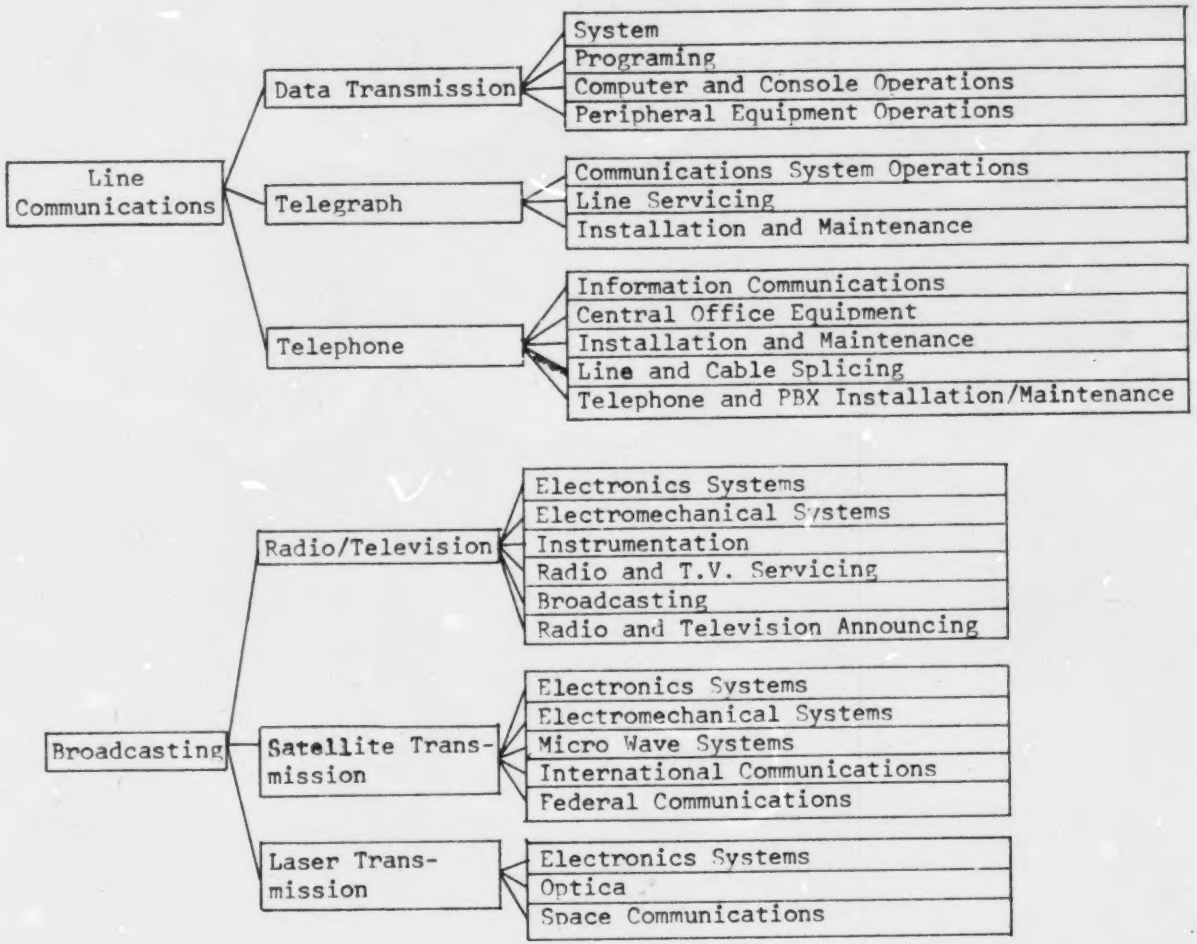

Operations
Management
Planning and Policy Administration
Data Interpretation
Personnel and Labor Relations
Communications
Mid-Management
Operations Techniques
Data Handling
Task Analysis
Communication Skills
Supervision
Operational Procedures
Processing Techniques
Personnel Relations
Communication Skills
Personnel
Personnel Practices
Communication Skills
Skill Development
Career Orientation

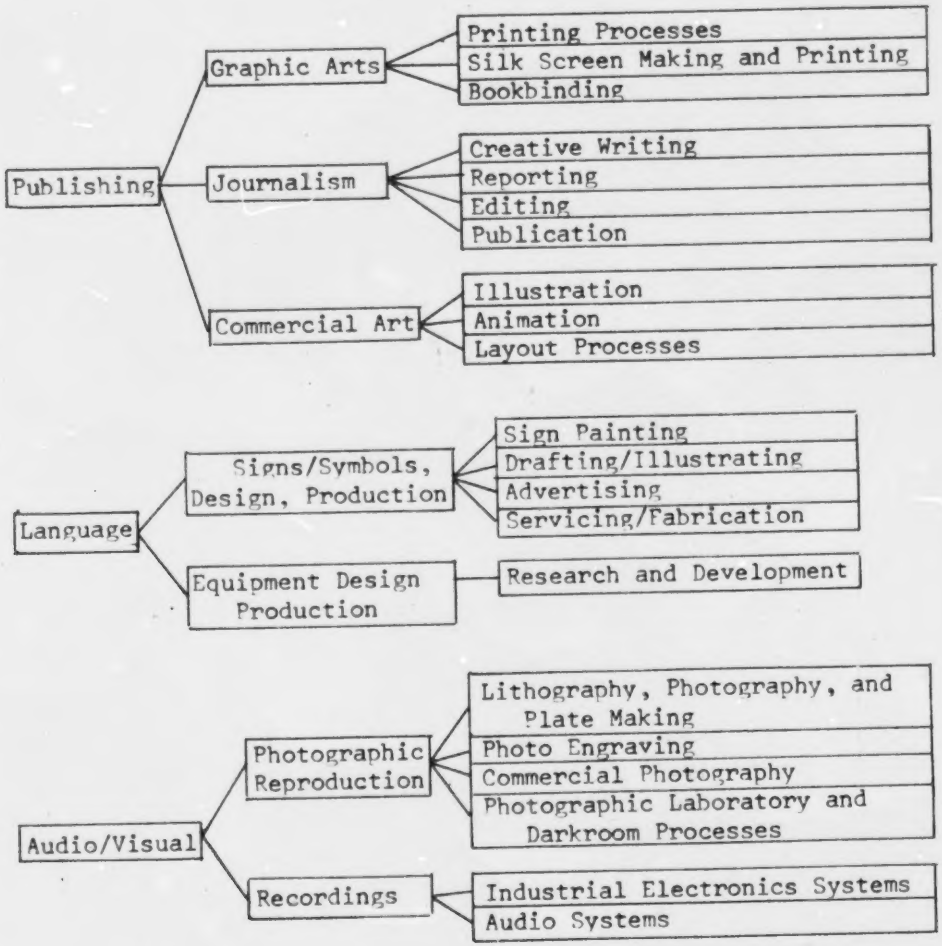

Water Transportation
Inland Water Transportation
Riverboat and Barge Operation
Deck Department
Engineer Department
Stewards Department
Merchant Marine Officers
Merchant Marine Seamen
Piloting
Ocean Water Transportation
Ocean and Intracoastal Vessel Operations
Deck Department
Engineer Department
Stewards Department
Merchant Marine Officers
Merchant Marine SEamen
Piloting

CLUSTER FOR
FINE ARTS AND HUMANITIES

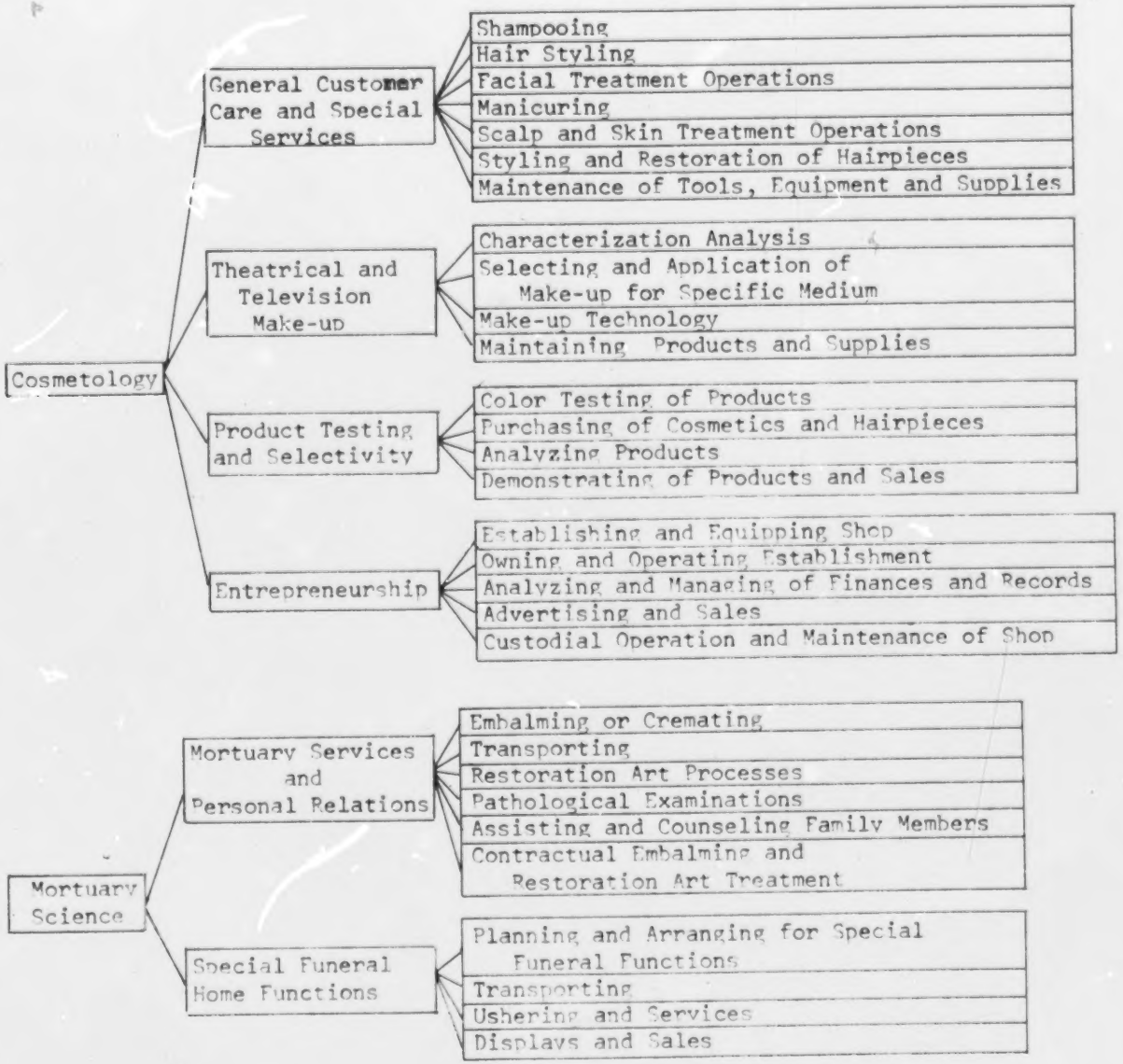


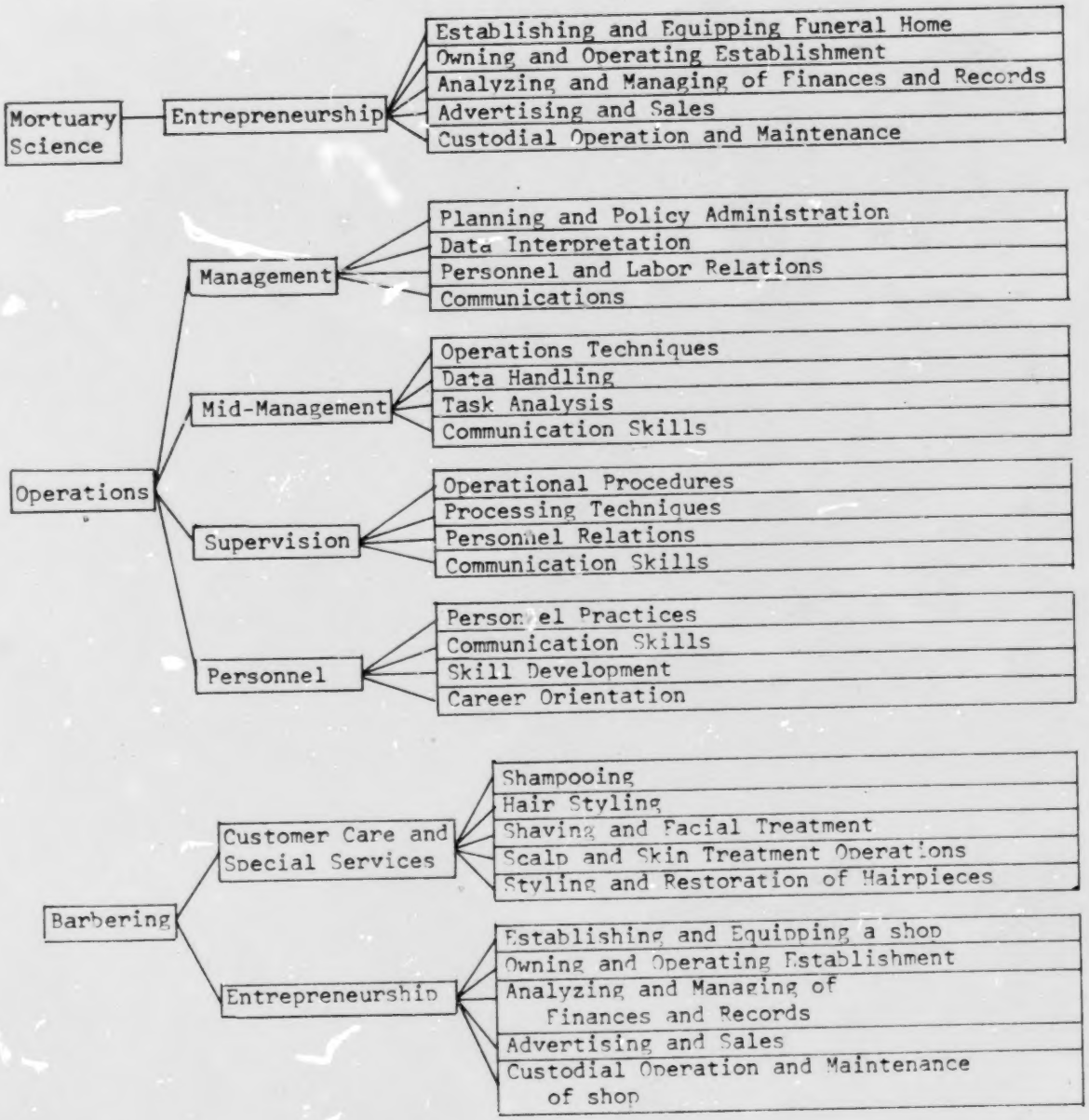
CLUSTER FOR COMMUNICATION AND MEDIA




Publishing
Graphic Arts
Printing Processes
Silk Screen Making and Printing
Bookbinding
Journalism
Creative Writing
Reporting
Editing
Publication
Commercial Art
Illustration
Animation
Layout Processes
Language
Signs/Symbols, Design, Production
Sign Painting
Drafting/Illustrating
Advertising
Servicing/Fabrication
Equipment Design Production
Research and Development
Audio/Visual
Photographic Reproduction
Lithography, Photography, and Plate Making
Photo Engraving
Commercial Photography
Photographic Laboratory and Darkroom Processes
Recordings
Industrial Electronics Systems
Audio Systems

CLUSTER FOR
PERSONAL SERVICES OCCUPATIONS




Mortuary Science
Entrepreneurship
Establishing and Equipping Funeral Home
Owning and Operating Establishment
Analyzing and Managing of Finances and Records
Advertising and Sales
Custodial Operation and Maintenance
Operations
Management
Planning and Policy Administration
Data Interpretation
Personnel and Labor Relations
Communications
Mid-Management
Operations Techniques
Data Handling
Task Analysis
Communication Skills
Supervision
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Processing Techniques
Personnel Relations
Communication Skills
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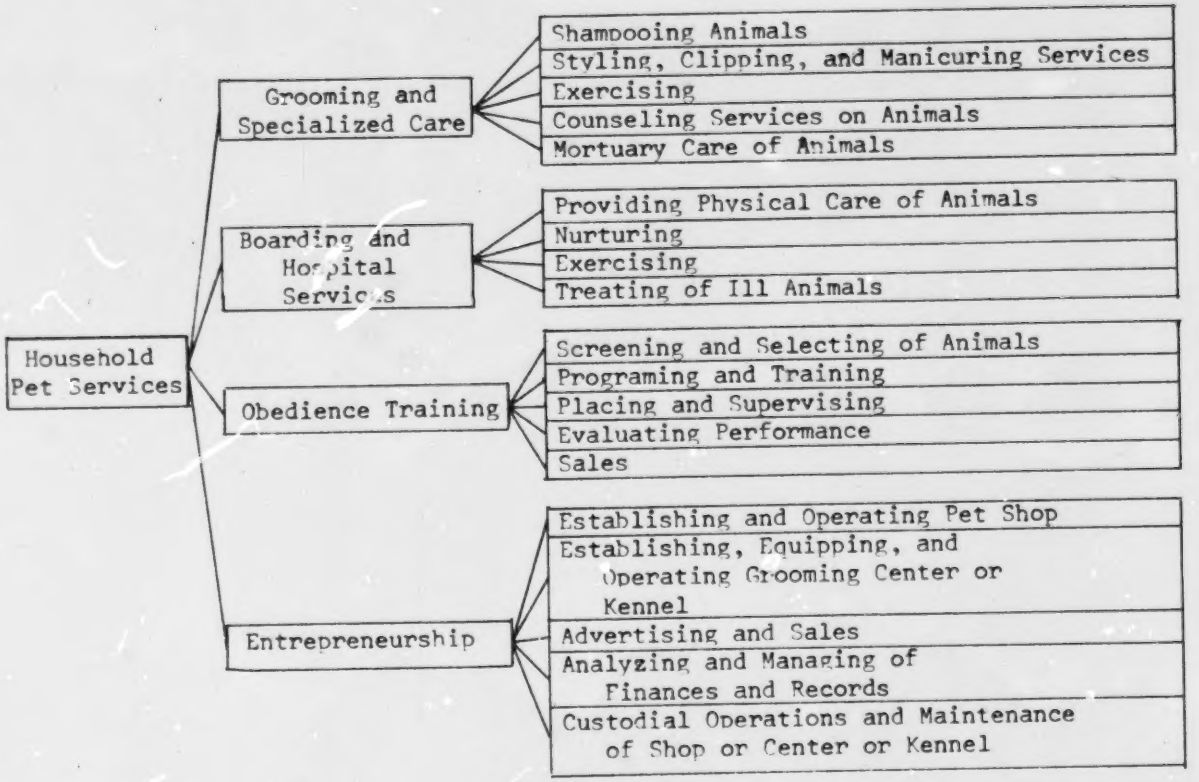
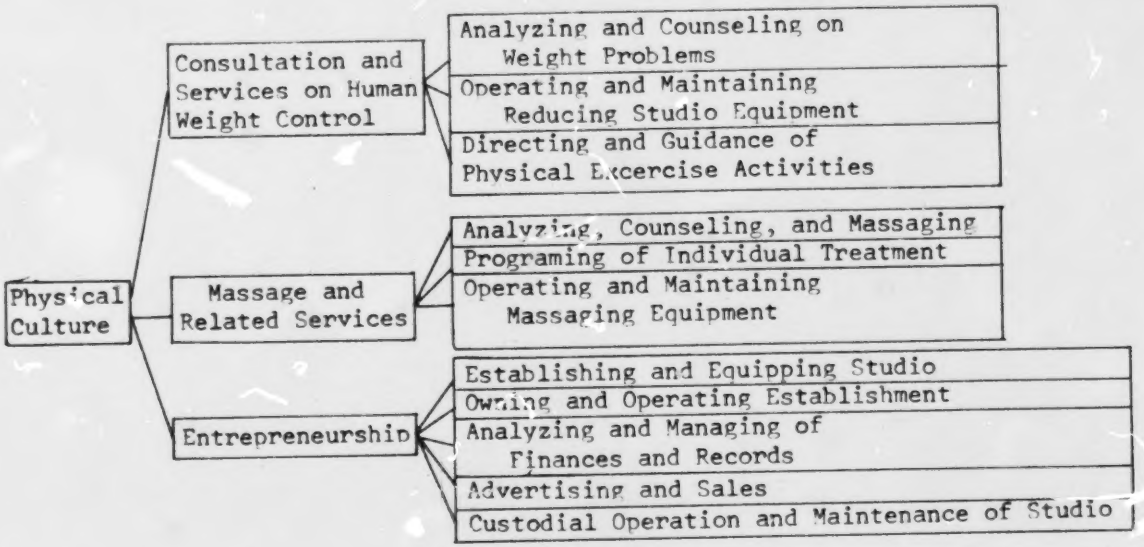
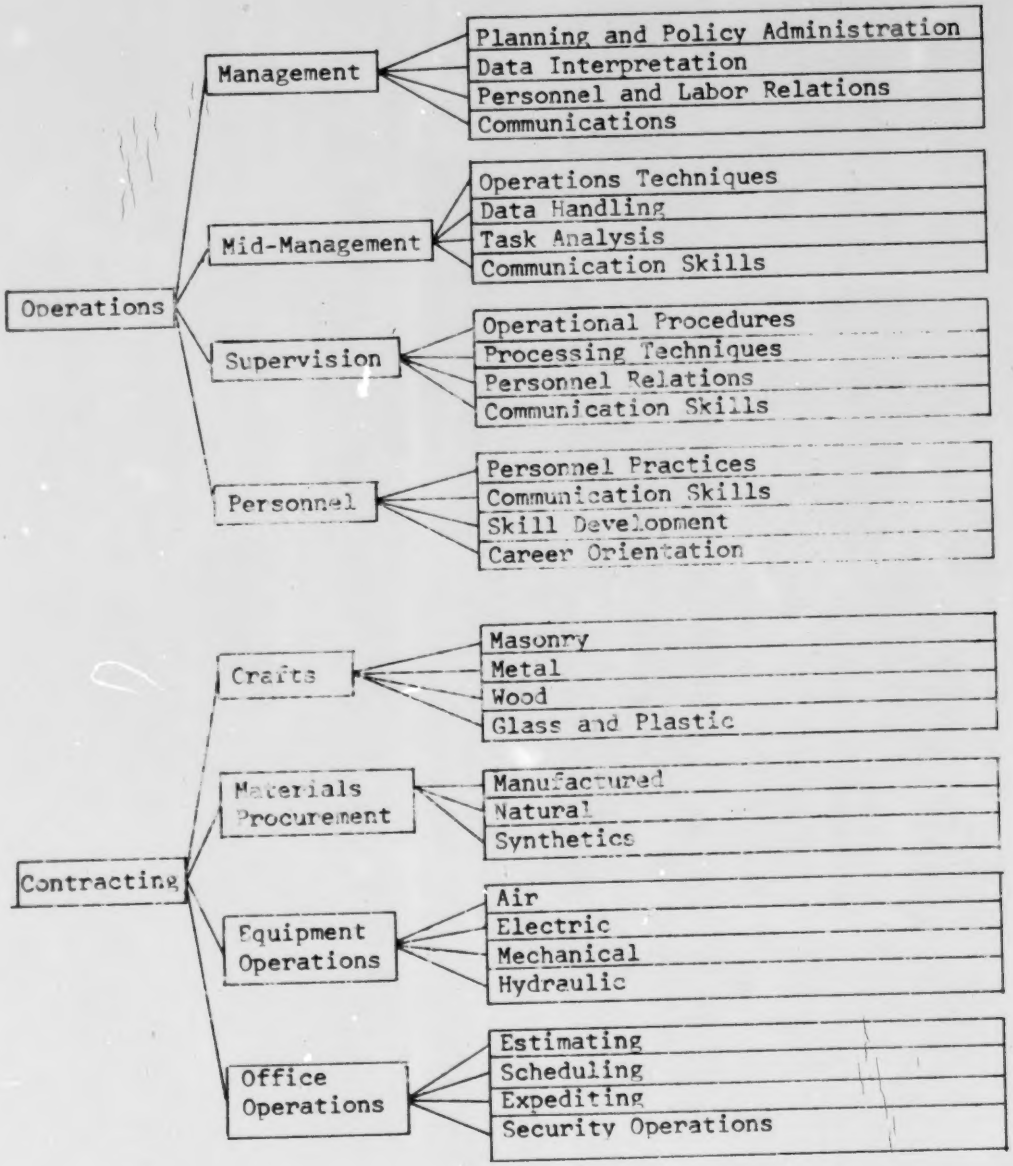
Skill Development
Career Orientation
Barbering
Customer Care and Special Services
Shampooing
Hair Styling
Shaving and Facial Treatment
Scalp and Skin Treatment Operations
Styling and Restoration of Hairpieces
Entrepreneurship
Establishing and Equipping a shop
Owning and Operating Establishment
Analyzing and Managing of Finances and Records
Advertising and Sales
Custodial Operation and Maintenance of shop


Household Pet Services
Grooming and Specialized Care
Shampooing Animals
Styling, Clipping, and Manicuring Services
Exercising
Counseling Services on Animals
Mortuary Care of Animals
Boarding and Hospital Services
Providing Physical Care of Animals
Nurturing
Exercising
Treating of Ill Animals
Obedience Training
Screening and Selecting of Animals
Programing and Training
Placing and Supervising
Evaluating Performance
Sales
Entrepreneurship
Establishing and Operating Pet Shop
Establishing, Equipping, and Operating Grooming Center or Kennel
Advertising and Sales
Analyzing and Managing of Finances and Records
Custodial Operations and Maintenance of Shop or Center or Kennel


Physical Culture
Consultation and Services on Human Weight Control
Analyzing and Counseling on Weight Problems
Operating and Maintaining Reducing Studio Equipment
Directing and Guidance of Physical Excercise Activities
Massage and Related Services
Analyzing, Counseling, and Massaging
Programing of Individual Treatment
Operating and Maintaining Massaging Equipment
Entrepreneurship
Establishing and Equipping Studio
Owning and Operating Establishment
Analyzing and Managing of Finances and Records
Advertising and Sales
Custodial Operation and Maintenance of Studio

CLUSTER FOR CONSTRUCTION



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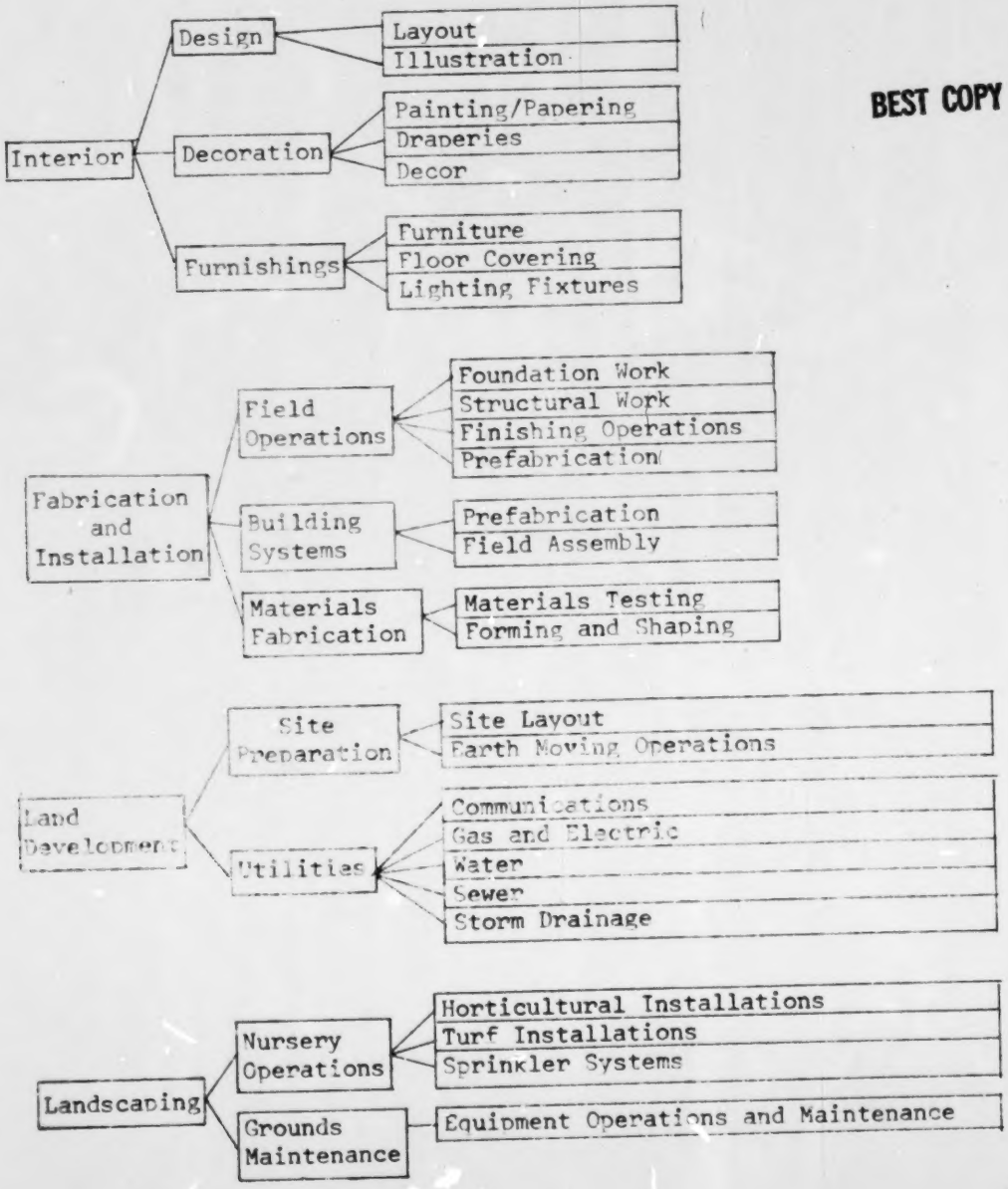
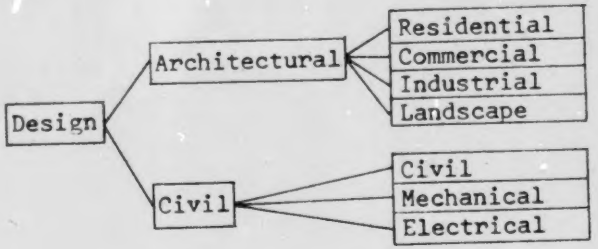
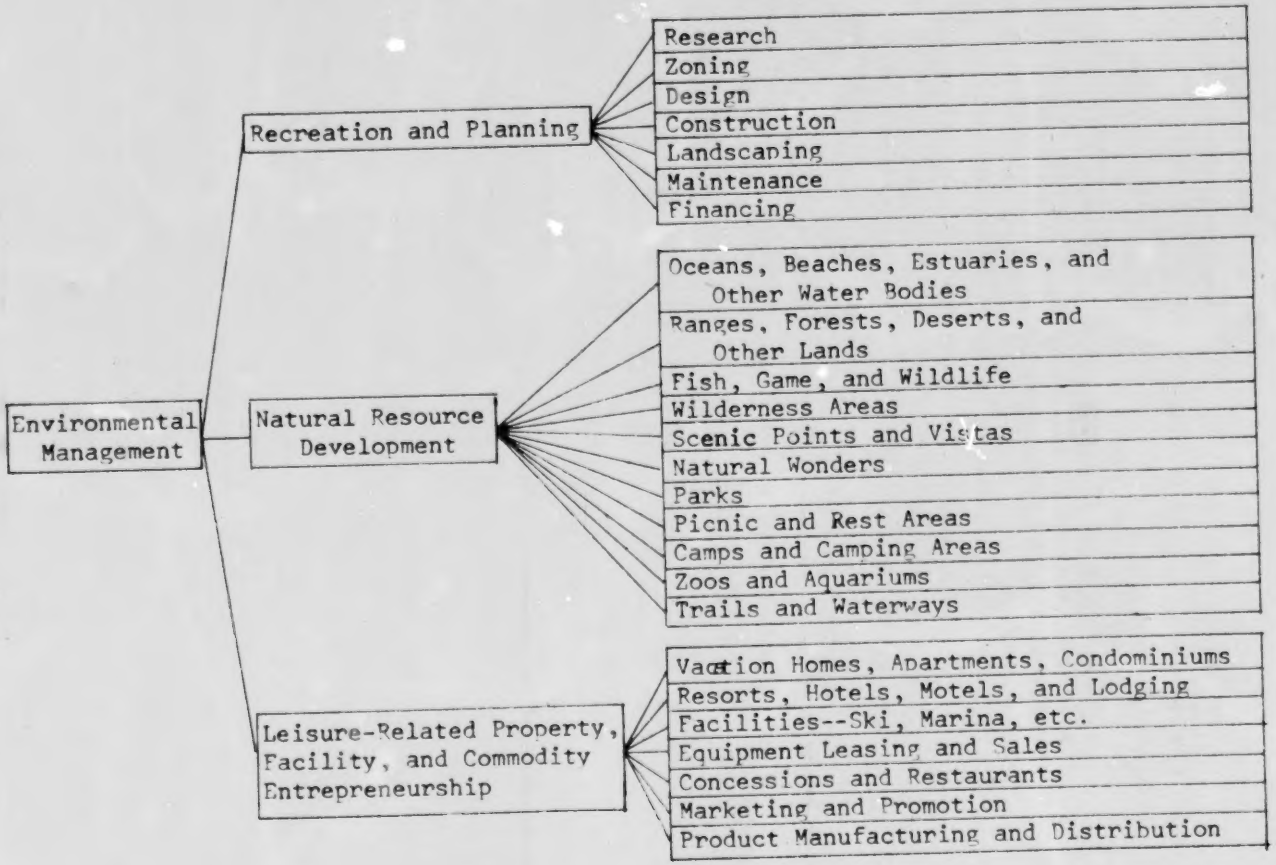
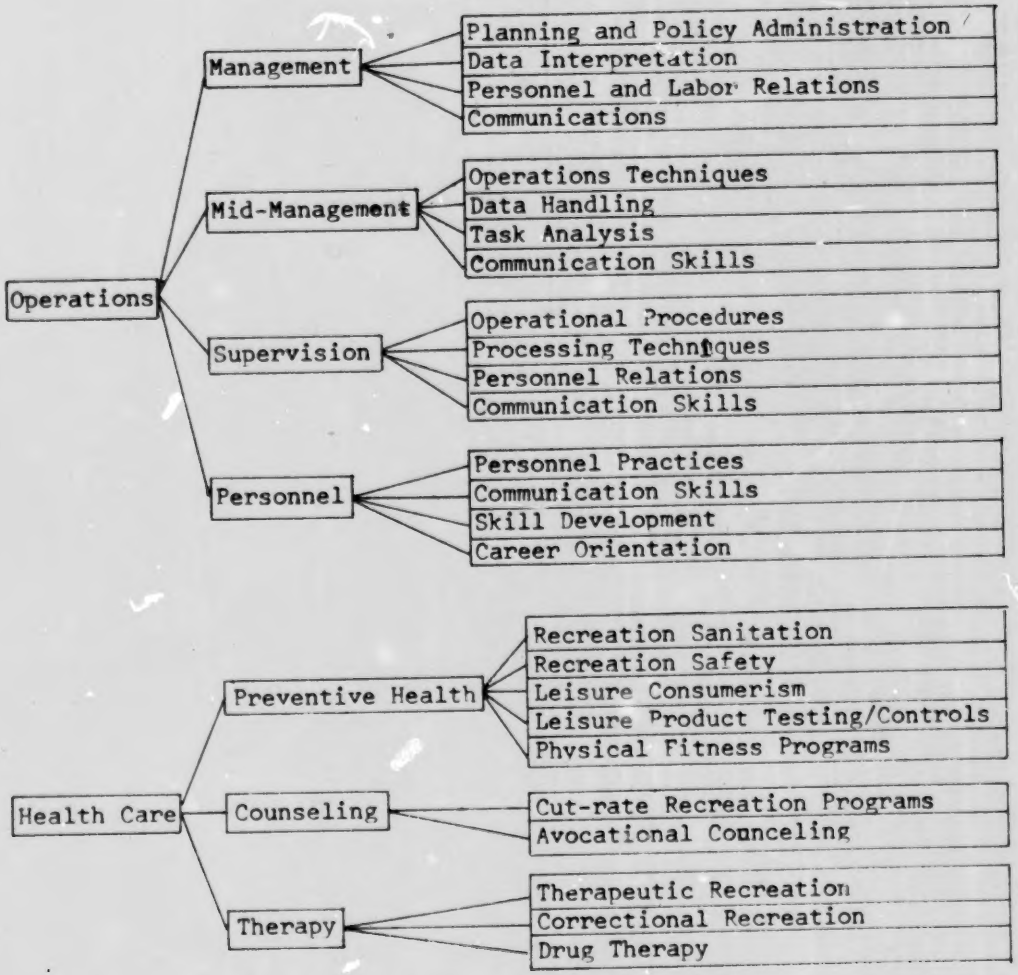



Design
Architectural
Residential
Commercial
Industrial
Landscape
Civil
Civil
Mechanical
Electrical

CLUSTER FOR
HOSPITALITY AND RECREATION

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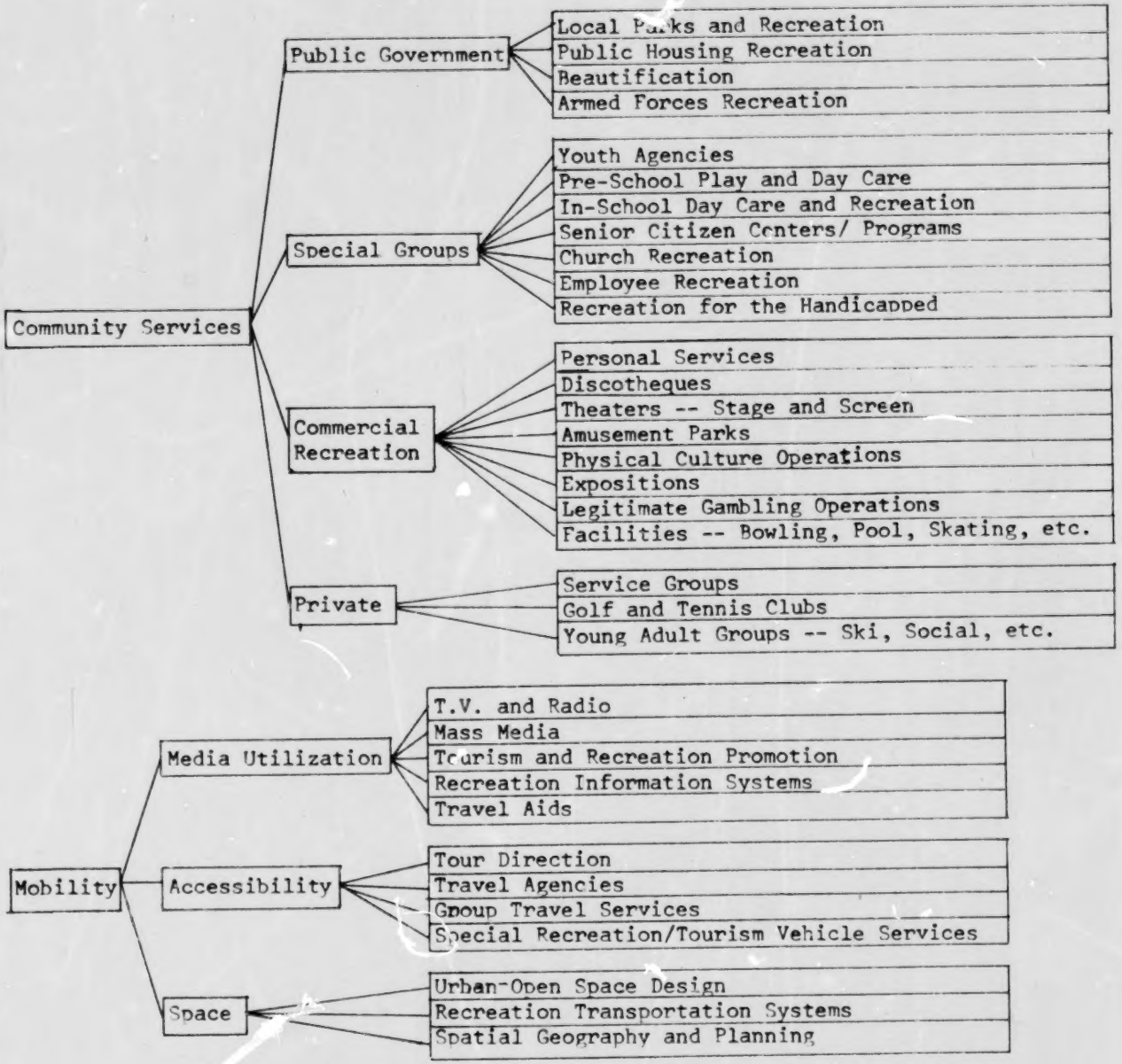
Skill Development
Career Orientation
Health Care
Preventive Health
Recreation Sanitation
Recreation Safety
Leisure Consumerism
Leisure Product Testing/Controls
Physical Fitness Programs
Counseling
Cut-rate Recreation Programs
Avocational Counceling
Therapy
Therapeutic Recreation
Correctional Recreation
Drug Therapy


Community Services
Public Government
Local Parks and Recreation
Public Housing Recreation
Beautification
Armed Forces Recreation
Special Groups
Youth Agencies
Pre-School Play and Day Care
In-School Day Care and Recreation
Senior Citizen Centers/ Programs
Church Recreation
Employee Recreation
Recreation for the Handicapped
Commercial Recreation
Personal Services
Discotheques
Theaters -- Stage and Screen
Amusement Parks
Physical Culture Operations
Expositions
Legitimate Gambling Operations
Facilities -- Bowling, Pool, Skating, etc.
Private
Service Groups
Golf and Tennis Clubs
Young Adult Groups -- Ski, Social, etc.
Mobility
Media Utilization
T.V. and Radio
Mass Media
Tourism and Recreation Promotion
Recreation Information Systems
Travel Aids
Accessibility
Tour Direction
Travel Agencies
Group Travel Services
Special Recreation/Tourism Vehicle Services
Space
Urban-Open Space Design
Recreation Transportation Systems
Spatial Geography and Planning

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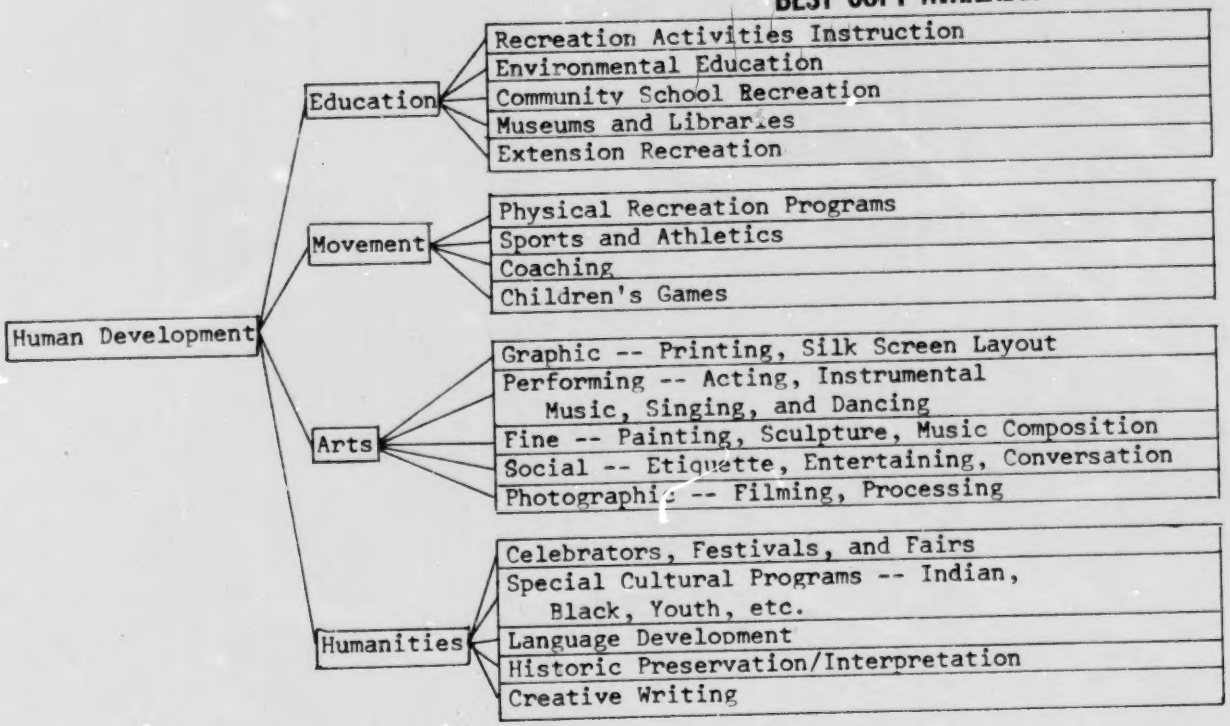
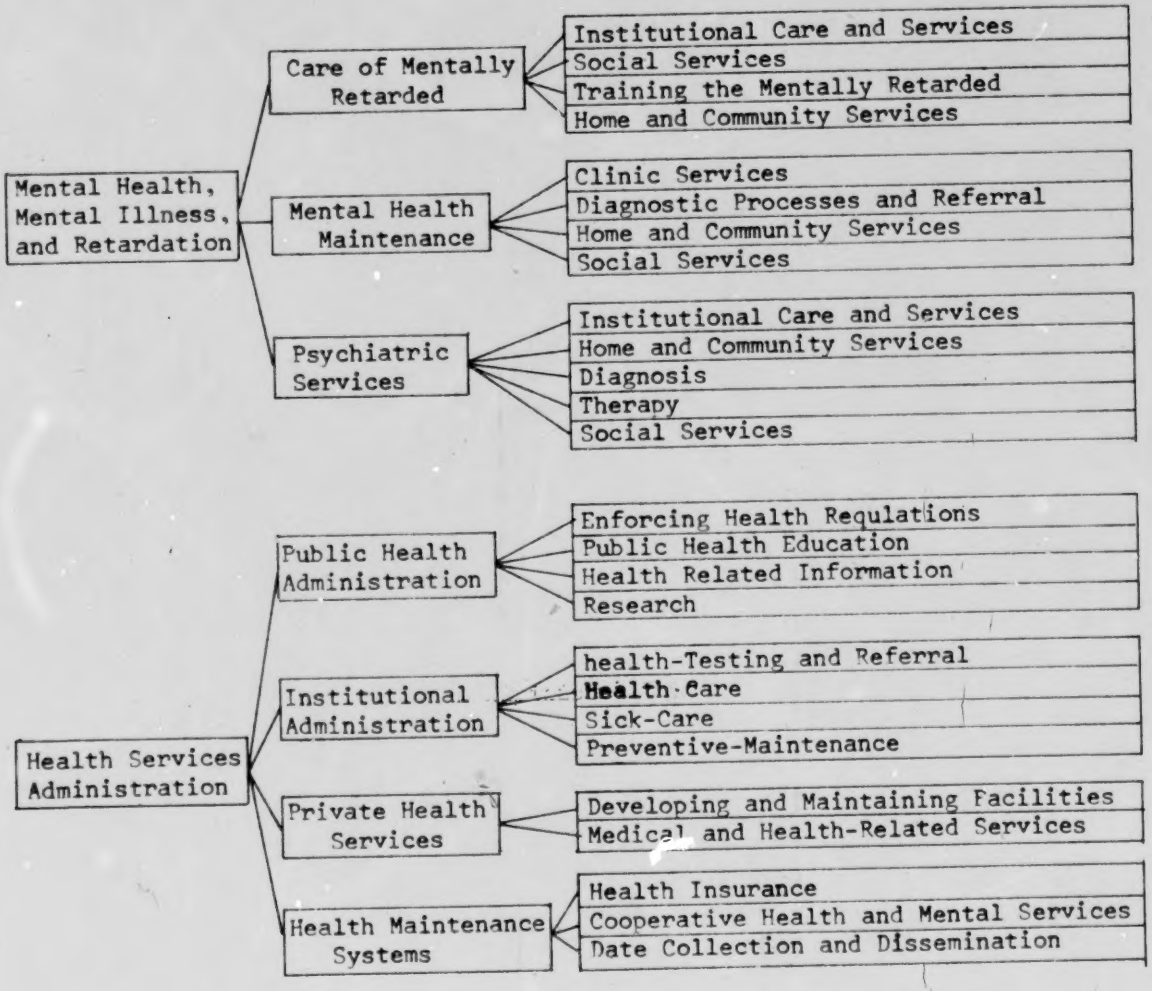
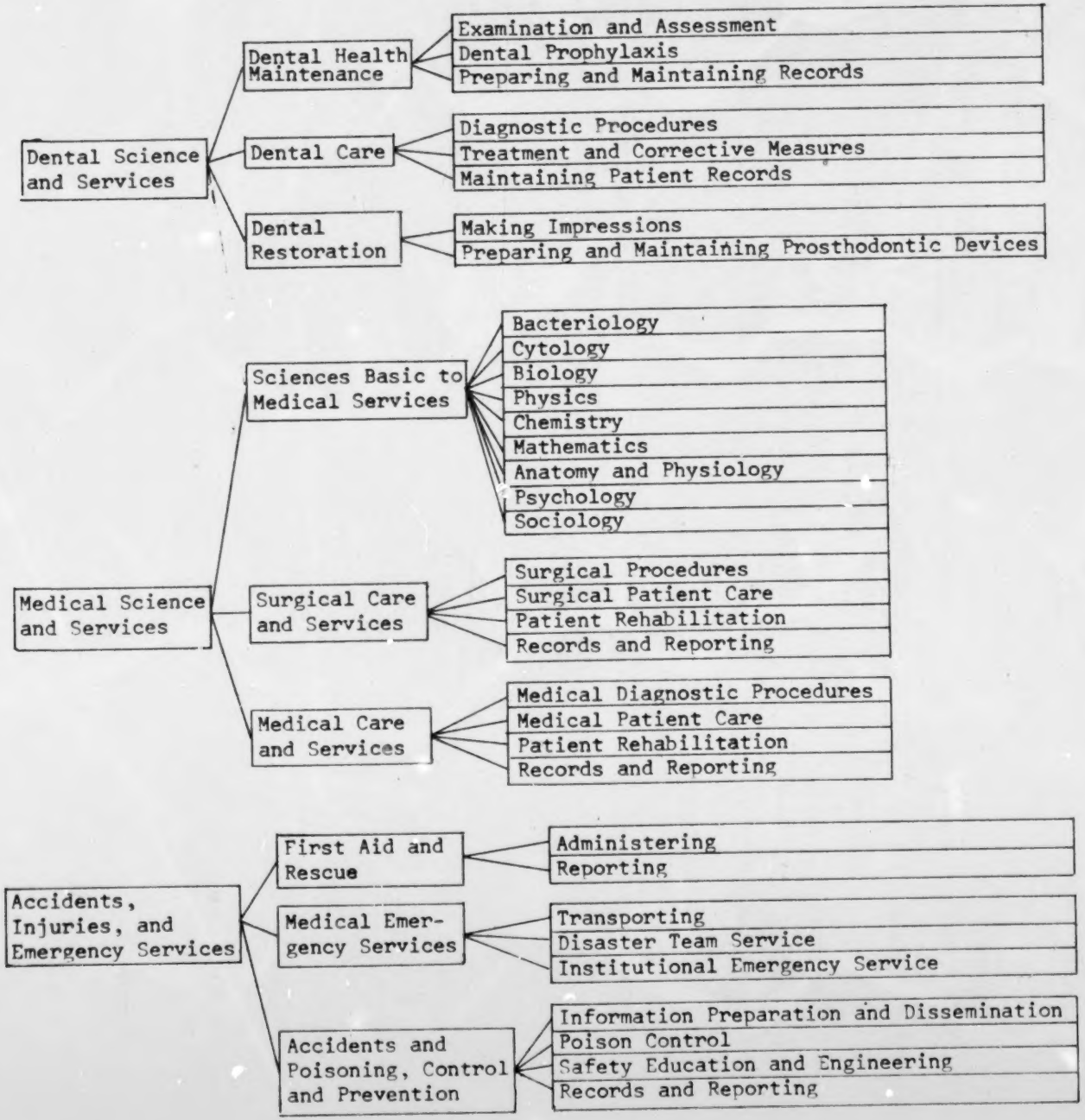
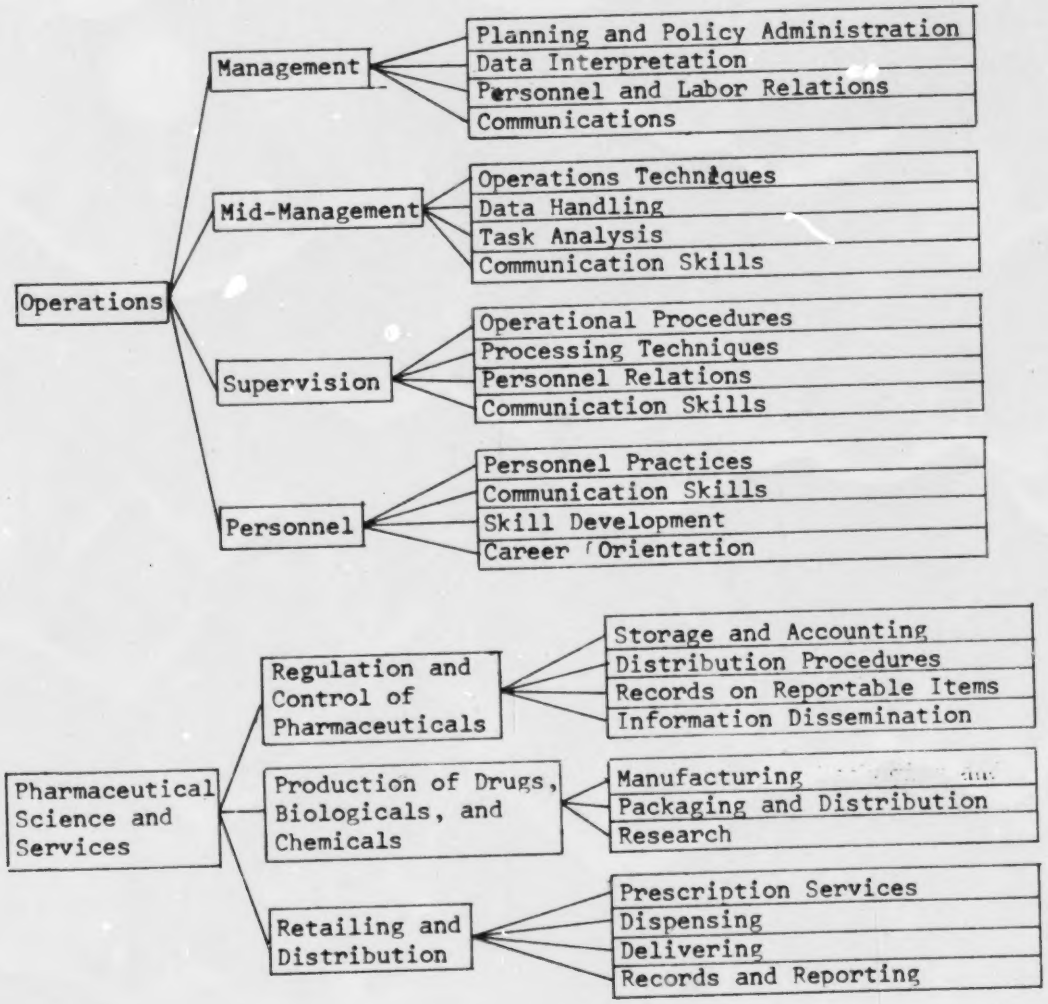


CLUSTER FOR
HEALTH OCCUPATIONS




Dental Science and Services
Dental Health Maintenance
Examination and Assessment
Dental Prophylaxis
Preparing and Maintaining Records
Dental Care
Diagnostic Procedures
Treatment and Corrective Measures
Maintaining Patient Records
Dental Restoration
Making Impressions
Preparing and Maintaining Prosthodontic Devices
Medical Science and Services
Sciences Basic to Medical Services
Bacteriology
Cytology
Biology
Physics
Chemistry
Mathematics
Anatomy and Physiology
Psychology
Sociology
Surgical Care and Services
Surgical Procedures
Surgical Patient Care
Patient Rehabilitation
Records and Reporting
Medical Care and Services
Medical Diagnostic Procedures
Medical Patient Care
Patient Rehabilitation
Records and Reporting
Accidents, Injuries, and Emergency Services
First Aid and Rescue
Administering
Reporting
Medical Emergency Services
Transporting
Disaster Team Service
Institutional Emergency Service
Accidents and Poisoning, Control and Prevention
Information Preparation and Dissemination
Poison Control
Safety Education and Engineering
Records and Reporting


Operations
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Data Handling
Task Analysis
Communication Skills
Supervision
Operational Procedures
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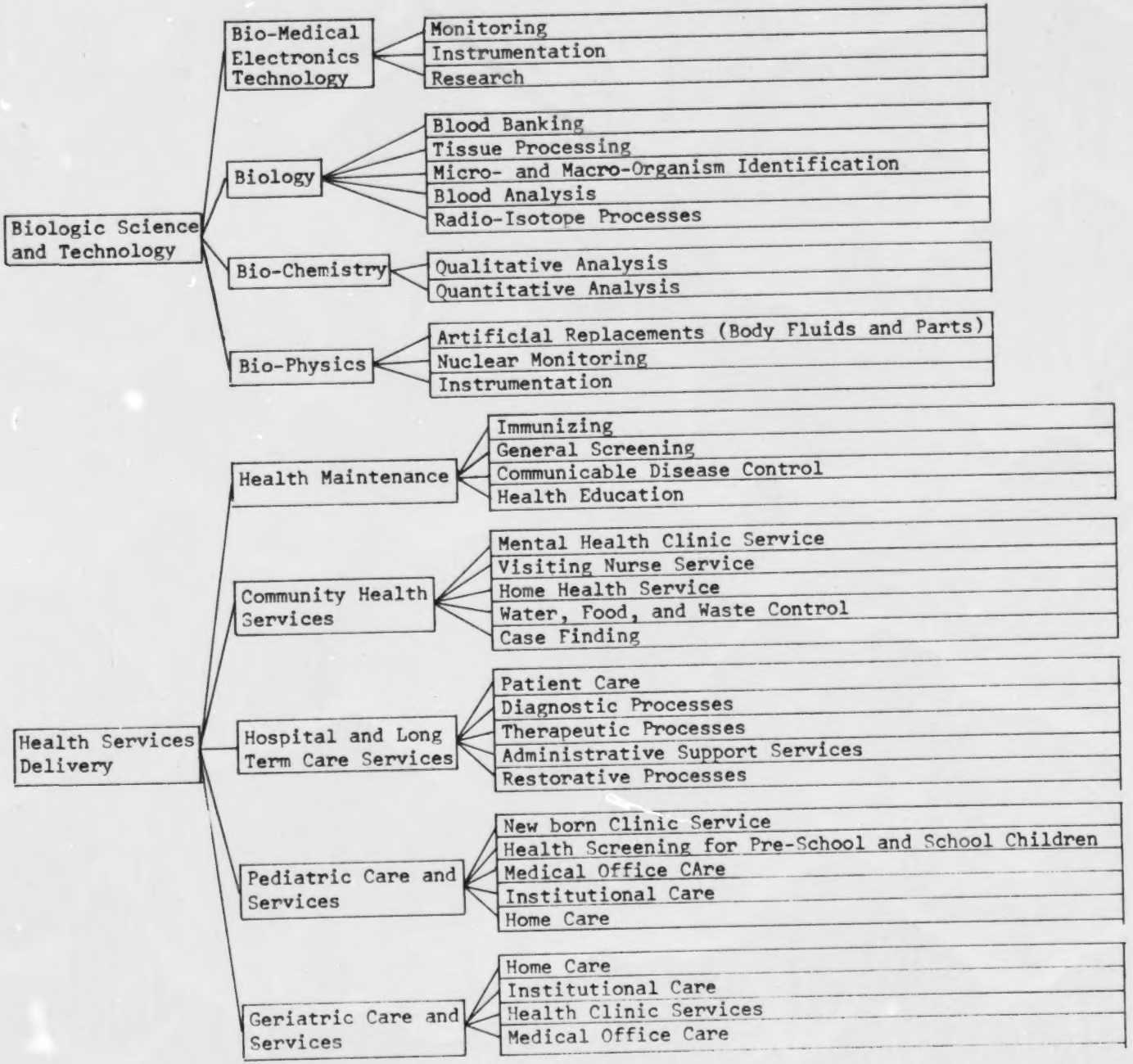
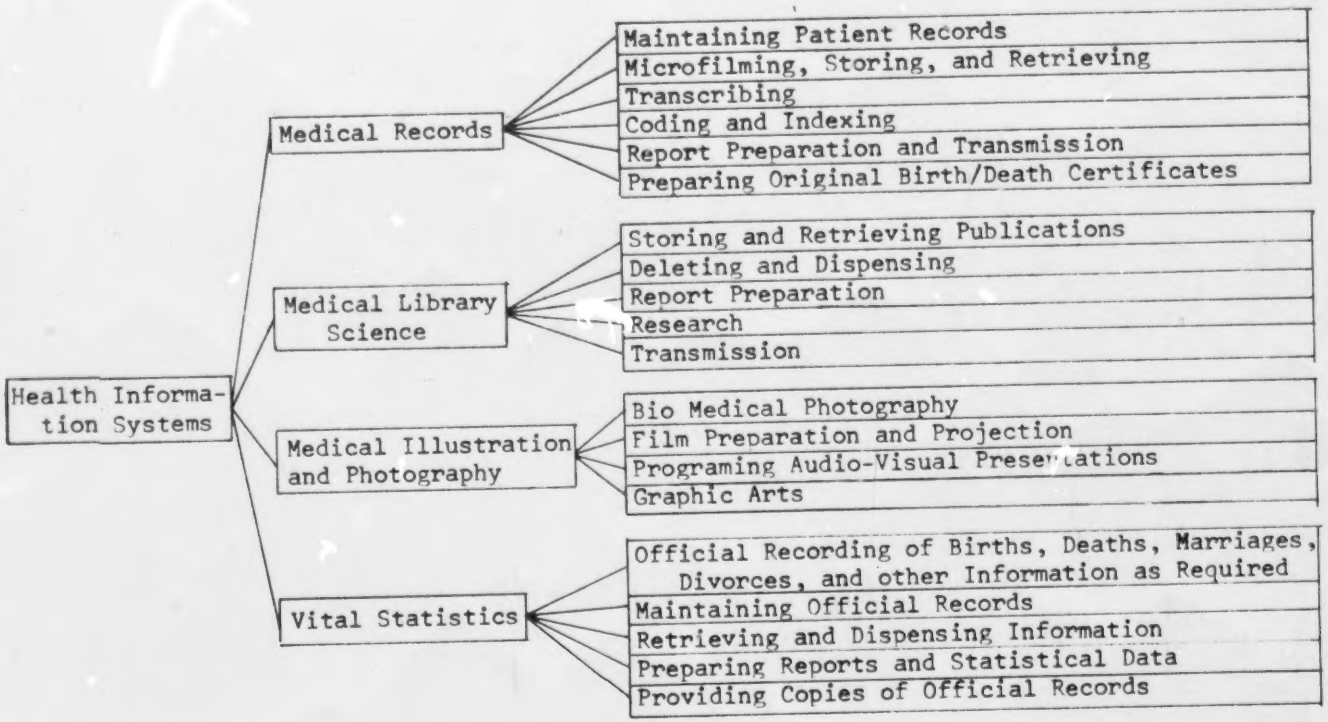
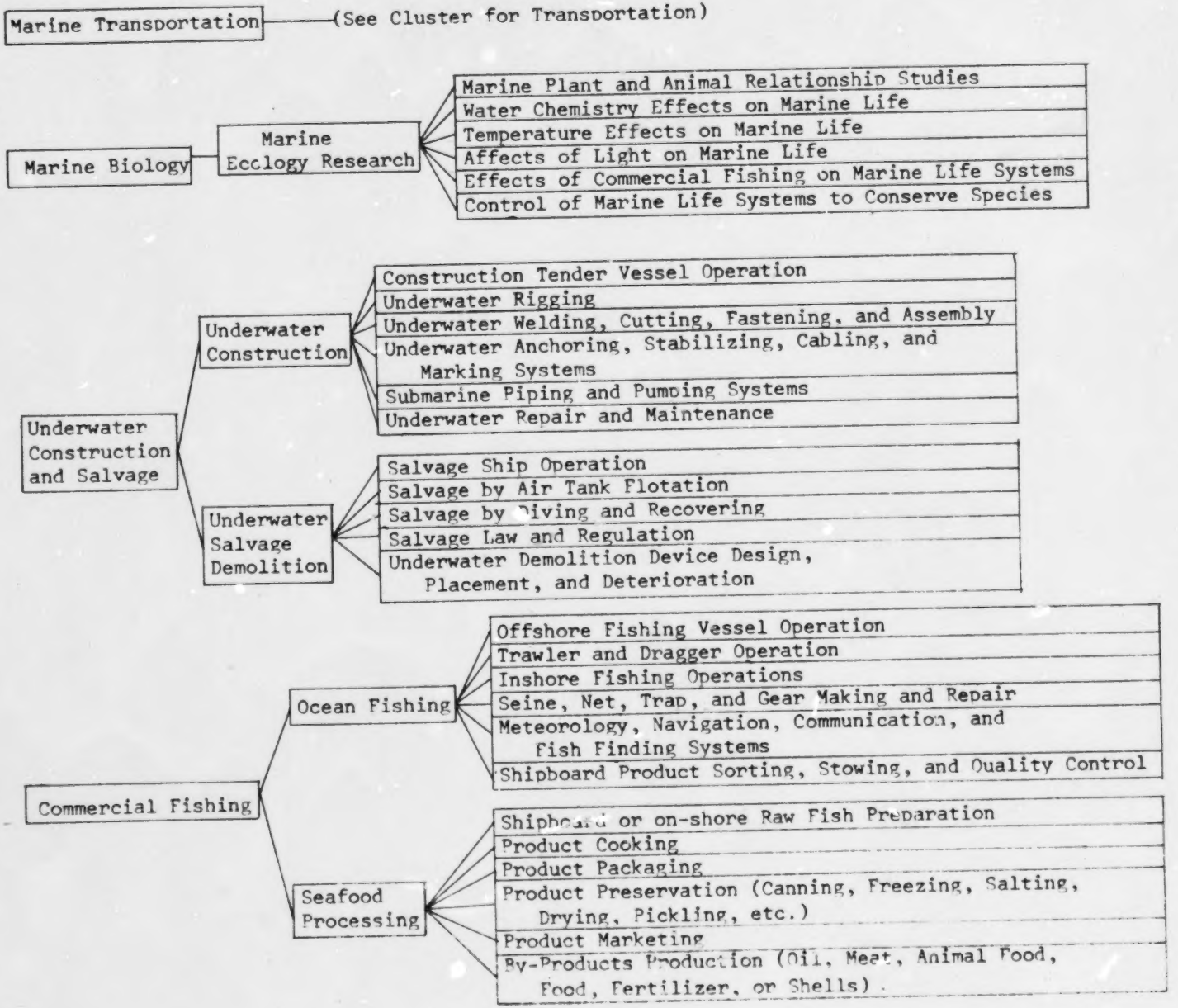
Communication Skills
Skill Development
Career Orientation
Pharmaceutical Science and Services
Regulation and Control of Pharmaceuticals
Storage and Accounting
Distribution Procedures
Records on Reportable Items
Information Dissemination
Production of Drugs, Biologicals, and Chemicals
Manufacturing
Packaging and Distribution
Research
Retailing and Distribution
Prescription Services
Dispensing
Delivering
Records and Reporting


Biologic Science and Technology
Bio-Medical Electronics Technology
Monitoring
Instrumentation
Research
Biology
Blood Banking
Tissue Processing
Micro- and Macro-Organism Identification
Blood Analysis
Radio-Isotope Processes
Bio-Chemistry
Qualitative Analysis
Quantitative Analysis
Bio-Physics
Artificial Replacements (Body Fluids and Parts)
Nuclear Monitoring
Instrumentation
Health Services Delivery
Health Maintenance
Immunizing
General Screening
Communicable Disease Control
Health Education
Community Health Services
Mental Health Clinic Service
Visiting Nurse Service
Home Health Service
Water, Food, and Waste Control
Case Finding
Hospital and Long Term Care Services
Patient Care
Diagnostic Processes
Therapeutic Processes
Administrative Support Services
Restorative Processes
Pediatric Care and Services
New born Clinic Service
Health Screening for Pre-School and School Children
Medical Office CAre
Institutional Care
Home Care
Geriatric Care and Services
Home Care
Institutional Care
Health Clinic Services
Medical Office Care


Health Information Systems
Medical Records
Maintaining Patient Records
Microfilming, Storing, and Retrieving
Transcribing
Coding and Indexing
Report Preparation and Transmission
Preparing Original Birth/Death Certificates
Medical Library Science
Storing and Retrieving Publications
Deleting and Dispensing
Report Preparation
Research
Transmission
Medical Illustration and Photography
Bio Medical Photography
Film Preparation and Projection
Programing Audio-Visual Presentations
Graphic Arts
Vital Statistics
Official Recording of Births, Deaths, Marriages, Divorces, and other Information as Required
Maintaining Official Records
Retrieving and Dispensing Information
Preparing Reports and Statistical Data
Providing Copies of Official Records

CLUSTER FOR
MARINE SCIENCE OCCUPATIONS


Marine Transportation
(See Cluster for Transportation)
Marine Biology
Marine Ecology Research
Marine Plant and Animal Relationship Studies
Water Chemistry Effects on Marine Life
Temperature Effects on Marine Life
Affects of Light on Marine Life
Effects of Commercial Fishing on Marine Life Systems
Control of Marine Life Systems to Conserve Species
Underwater Construction and Salvage
Underwater Construction
Construction Tender Vessel Operation
Underwater Rigging
Underwater Welding, Cutting, Fastening, and Assembly
Underwater Anchoring, Stabilizing, Cabling, and Marking Systems
Submarine Piping and Pumping Systems
Underwater Repair and Maintenance
Underwater Salvage Demolition
Salvage Ship Operation
Salvage by Air Tank Flotation
Salvage by Diving and Recovering
Salvage Law and Regulation
Underwater Demolition Device Design, Placement, and Deterioration
Commercial Fishing
Ocean Fishing
Offshore Fishing Vessel Operation
Trawler and Dragger Operation
Inshore Fishing Operations
Seine, Net, Trap, and Gear Making and Repair
Meteorology, Navigation, Communication, and Fish Finding Systems
Shipboard Product Sorting, Stowing, and Quality Control
Seafood Processing
Shipboard or on-shore Raw Fish Preparation
Product Cooking
Product Packaging
Product Preservation (Canning, Freezing, Salting, Drying, Pickling, etc.)
Product Marketing
By-Products Production (Oil, Meat, Animal Food, Food, Fertilizer, or Shells)

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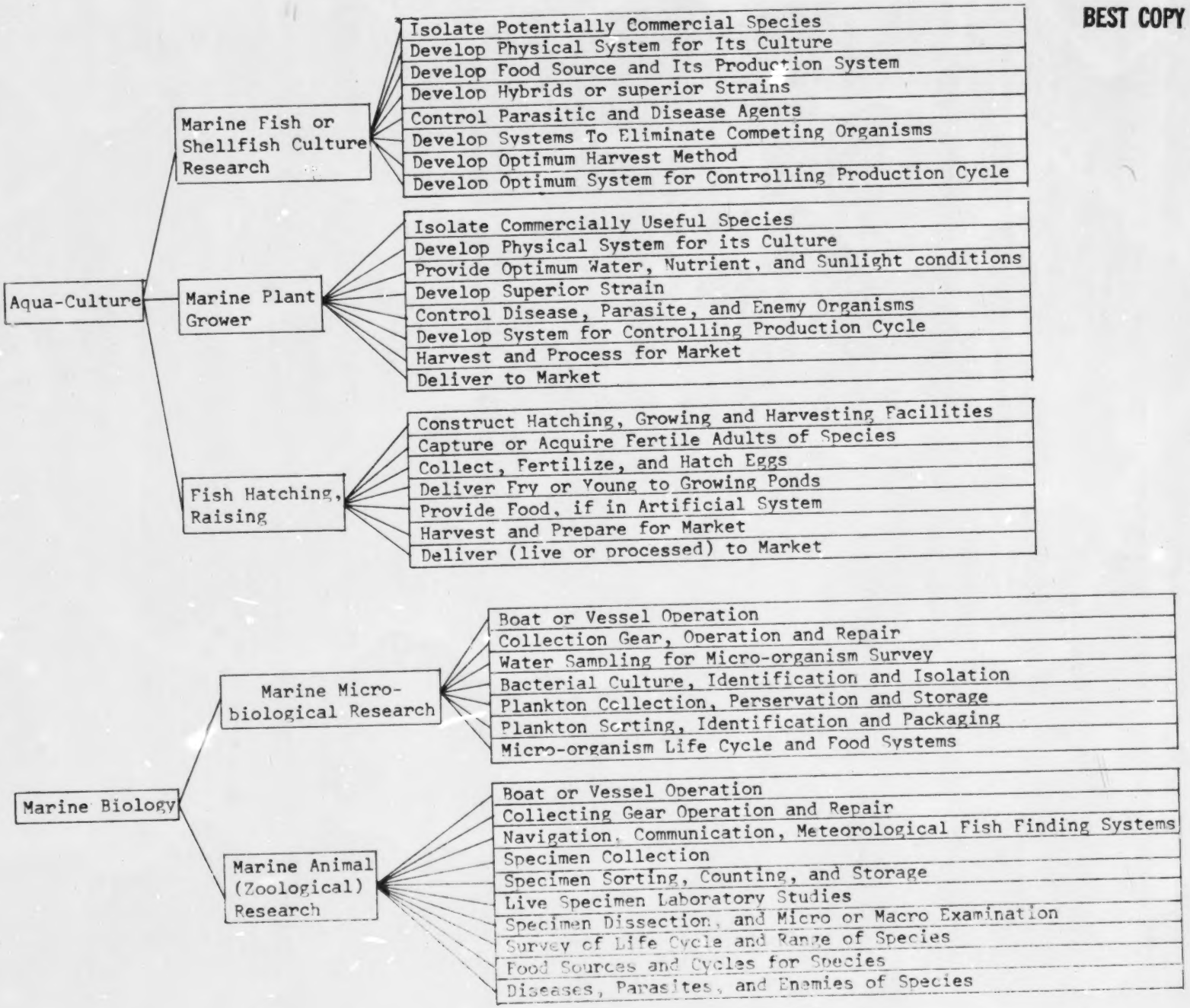
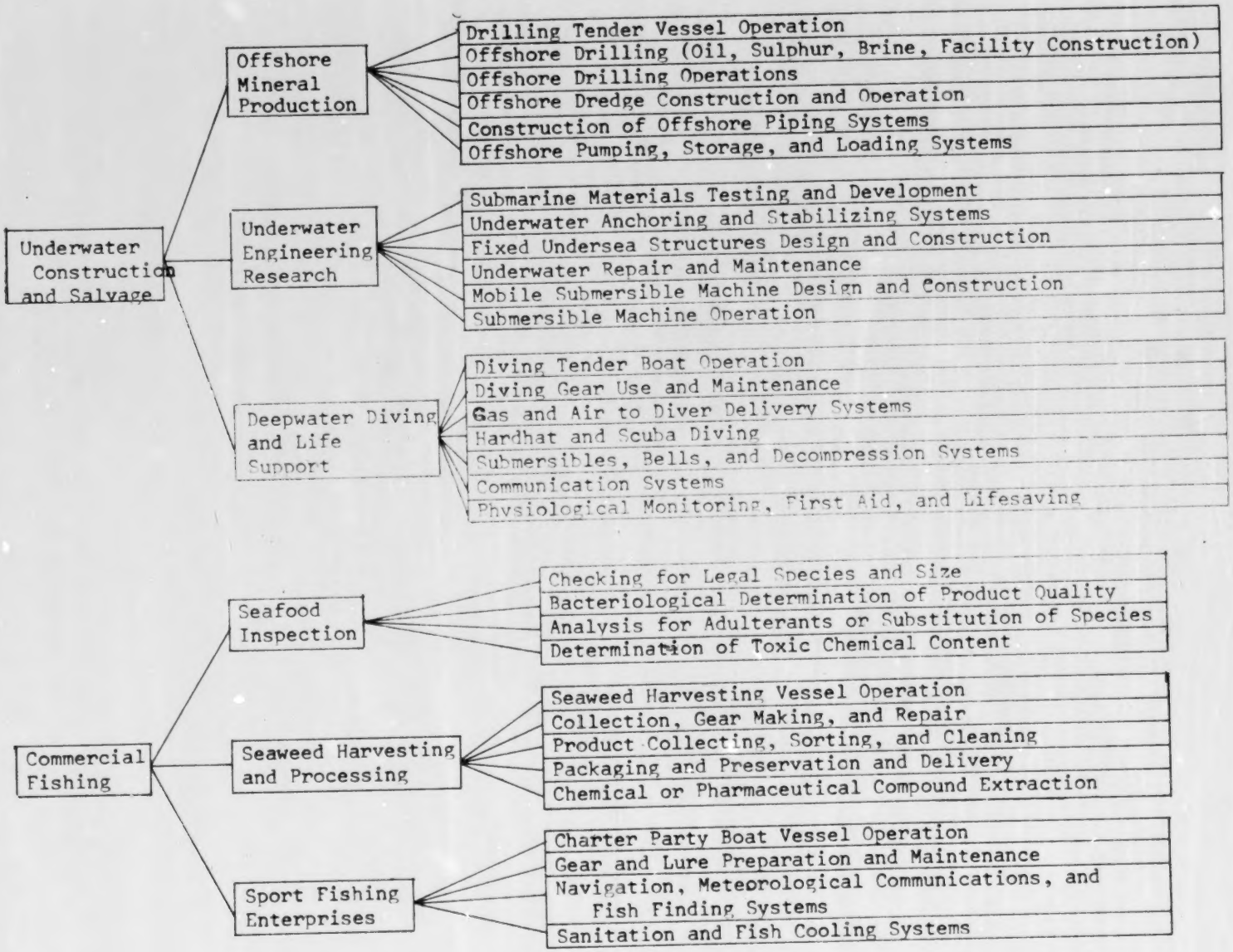

Aqua-Culture
Marine Fish or Shellfish Culture Research
Isolate Potentially Commercial Species
Develop Physical System for Its Culture
Develop Food Source and Its Production System
Develop Hybrids or superior Strains
Control Parasitic and Disease Agents
Develop Systems To Eliminate Competing Organisms
Develop Optimum Harvest Method
Develop Optimum System for Controlling Production Cycle
Marine Plant Grower
Isolate Commercially Useful Species
Develop Physical System for its Culture
Provide Optimum Water, Nutrient, and Sunlight conditions
Develop Superior Strain
Control Disease, Parasite, and Enemy Organisms
Develop System for Controlling Production Cycle
Harvest and Process for Market
Deliver to Market
Fish Hatching, Raising
Construct Hatching, Growing and Harvesting Facilities
Capture or Acquire Fertile Adults of Species
Collect, Fertilize, and Hatch Eggs
Deliver Fry or Young to Growing Ponds
Provide Food, if in Artificial System
Harvest and Prepare for Market
Deliver (live or processed) to Market
Marine Biology
Marine Micro-biological Research
Boat or Vessel Operation
Collection Gear, Operation and Repair
Water Sampling for Micro-organism Survey
Bacterial Culture, Identification and Isolation
Plankton Collection, Perservation and Storage
Plankton Sorting, Identification and Packaging
Micro-organism Life Cycle and Food Systems
Marine Animal (Zoological) Research
Boat or Vessel Operation
Collecting Gear Operation and Repair
Navigation, Communication, Meteorological Fish Finding Systems
Specimen Collection
Specimen Sorting, Counting, and Storage
Live Specimen Laboratory Studies
Specimen Dissection, and Micro or Macro Examination
Survey of Life Cycle and Range of Species
Food Sources and Cycles for Species
Diseases, Parasites, and Enemies of Species


Underwater Construction and Salvage
Offshore Mineral Production
Drilling Tender Vessel Operation
Offshore Drilling (Oil, Sulphur, Brine, Facility Construction)
Offshore Drilling Operations
Offshore Dredge Construction and Operation
Construction of Offshore Piping Systems
Offshore Pumping, Storage, and Loading Systems
Underwater Engineering Research
Submarine Materials Testing and Development
Underwater Anchoring and Stabilizing Systems
Fixed Undersea Structures Design and Construction
Underwater Repair and Maintenance
Mobile Submersible Machine Design and Construction
Submersible Machine Operation
Deepwater Diving and Life Support
Diving Tender Boat Operation
Diving Gear Use and Maintenance
Gas and Air to Diver Delivery Systems
Hardhat and Scuba Diving
Submersibles, Bells, and Decompression Systems
Communication Systems
Physiological Monitoring, First Aid, and Lifesaving
Commercial Fishing
Seafood Inspection
Checking for Legal Species and Size
Bacteriological Determination of Product Quality
Analysis for Adulterants or Substitution of Species
Determination of Toxic Chemical Content
Seaweed Harvesting and Processing
Seaweed Harvesting Vessel Operation
Collection, Gear Making, and Repair
Product Collecting, Sorting, and Cleaning
Packaging and Preservation and Delivery
Chemical or Pharmaceutical Compound Extraction
Sport Fishing Enterprises
Charter Party Boat Vessel Operation
Gear and Lure Preparation and Maintenance
Navigation, Meteorological Communications, and Fish Finding Systems
Sanitation and Fish Cooling Systems

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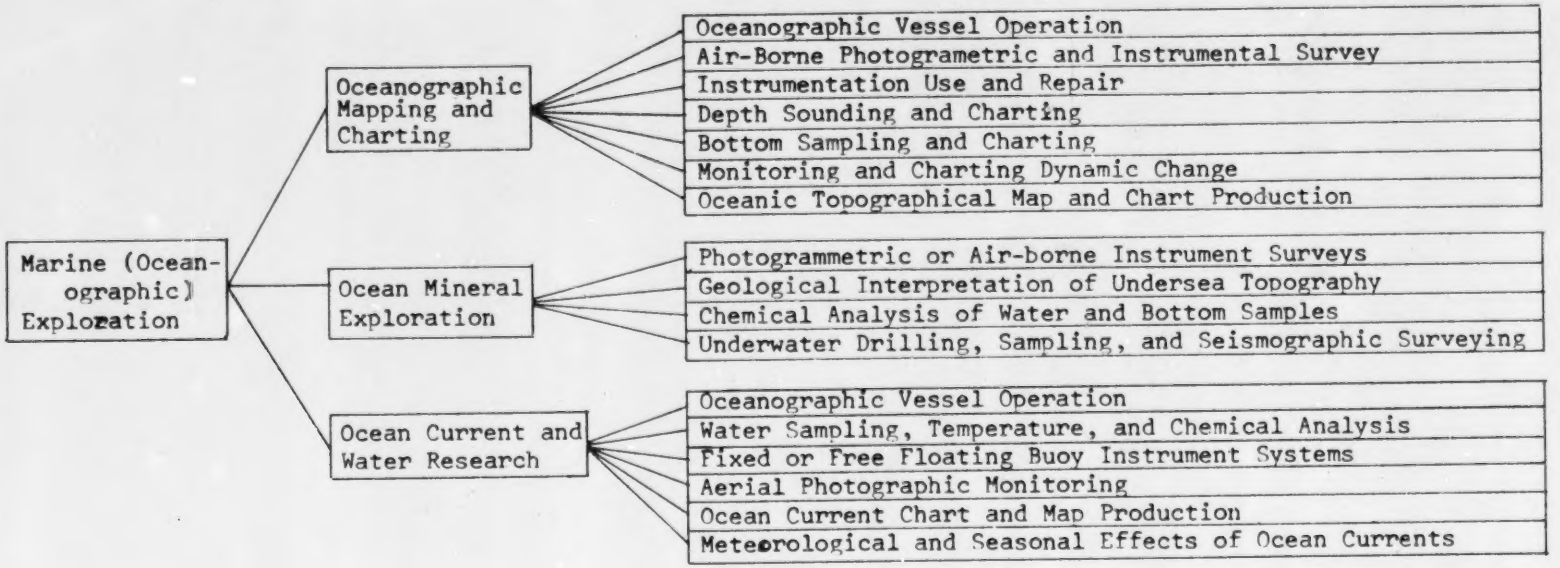
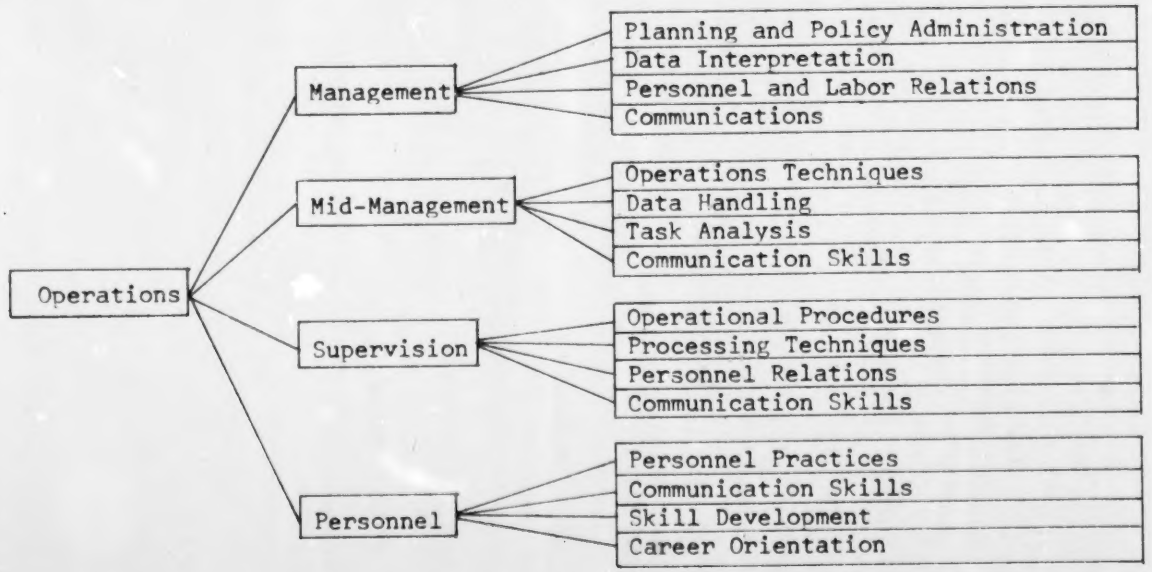
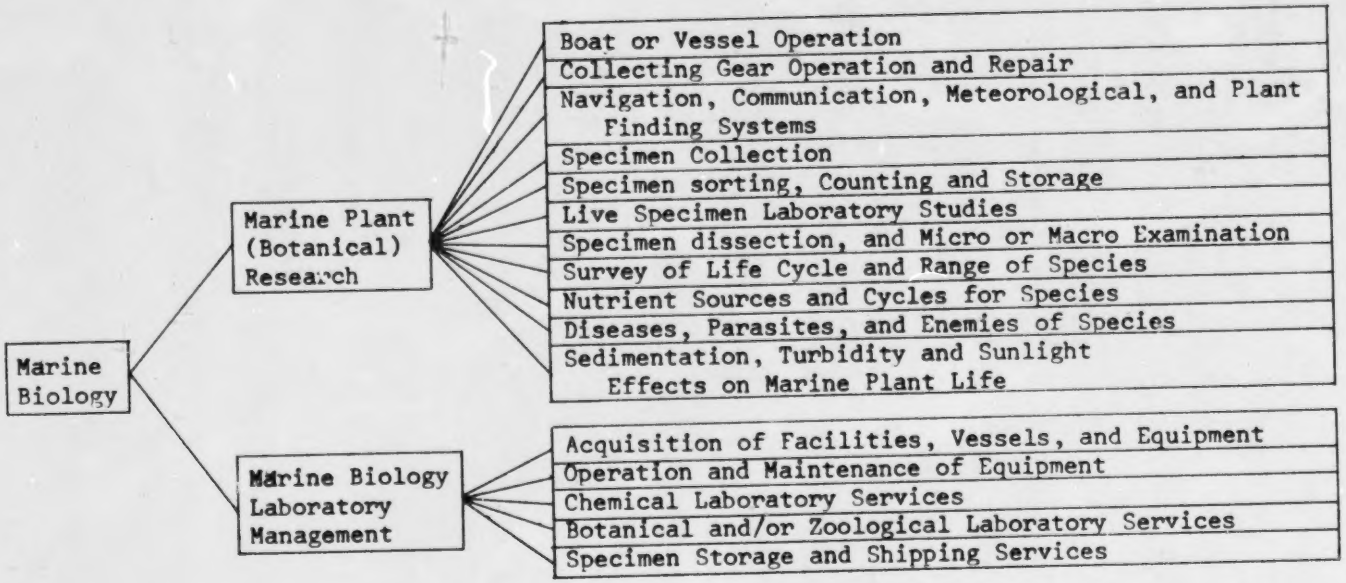
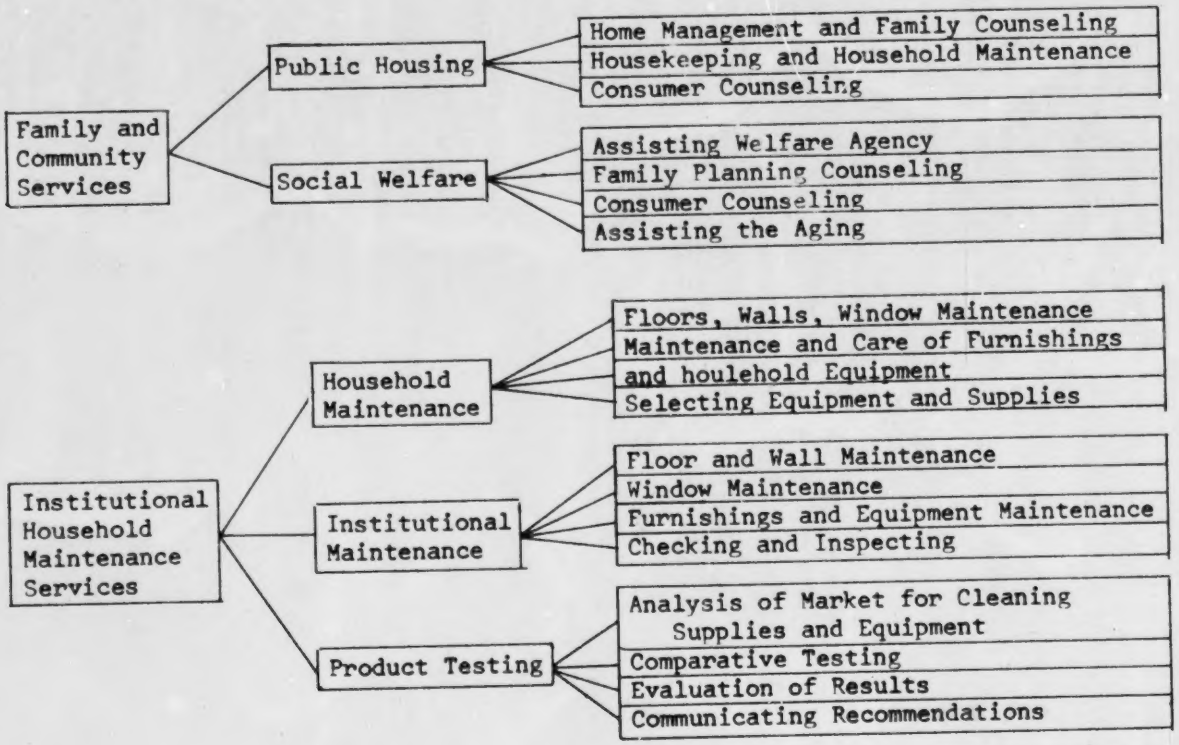

Marine (Oceanographic) Exploration
Oceanographic Mapping and Charting
Oceanographic Vessel Operation
Air-Borne Photogrametric and Instrumental Survey
Instrumentation Use and Repair
Depth Sounding and Charting
Bottom Sampling and Charting
Monitoring and Charting Dynamic Change
Oceanic Topographical Map and Chart Production
Ocean Mineral Exploration
Photogrammetric or Air-borne Instrument Surveys
Geological Interpretation of Undersea Topography
Chemical Analysis of Water and Bottom Samples
Underwater Drilling, Sampling, and Seismographic Surveying
Ocean Current and Water Research
Oceanographic Vessel Operation
Water Sampling, Temperature, and Chemical Analysis
Fixed or Free Floating Buoy Instrument Systems
Aerial Photographic Monitoring
Ocean Current Chart and Map Production
Meteorological and Seasonal Effects of Ocean Currents


Operations
Management
Planning and Policy Administration
Data Interpretation
Personnel and Labor Relations
Communications
Mid-Management
Operations Techniques
Data Handling
Task Analysis
Communication Skills
Supervision
Operational Procedures
Processing Techniques
Personnel Relations
Communication Skills
Personnel
Personnel Practices
Communication Skills
Skill Development
Career Orientation


Marine Biology
Marine Plant (Botanical) Research
Boat or Vessel Operation
Collecting Gear Operation and Repair
Navigation, Communication, Meteorological, and Plant Finding Systems
Specimen Collection
Specimen sorting, Counting and Storage
Live Specimen Laboratory Studies
Specimen dissection, and Micro or Macro Examination
Survey of Life Cycle and Range of Species
Nutrient Sources and Cycles for Species
Diseases, Parasites, and Enemies of Species
Sedimentation, Turbidity and Sunlight Effects on Marine Plant Life
Marine Biology Laboratory Management
Acquisition of Facilities, Vessels, and Equipment
Operation and Maintenance of Equipment
Chemical Laboratory Services
Botanical and/or Zoological Laboratory Services
Specimen Storage and Shipping Services

CLUSTER FOR
CONSUMER AND HOMEMAKING--RELATED OCCUPATIONS



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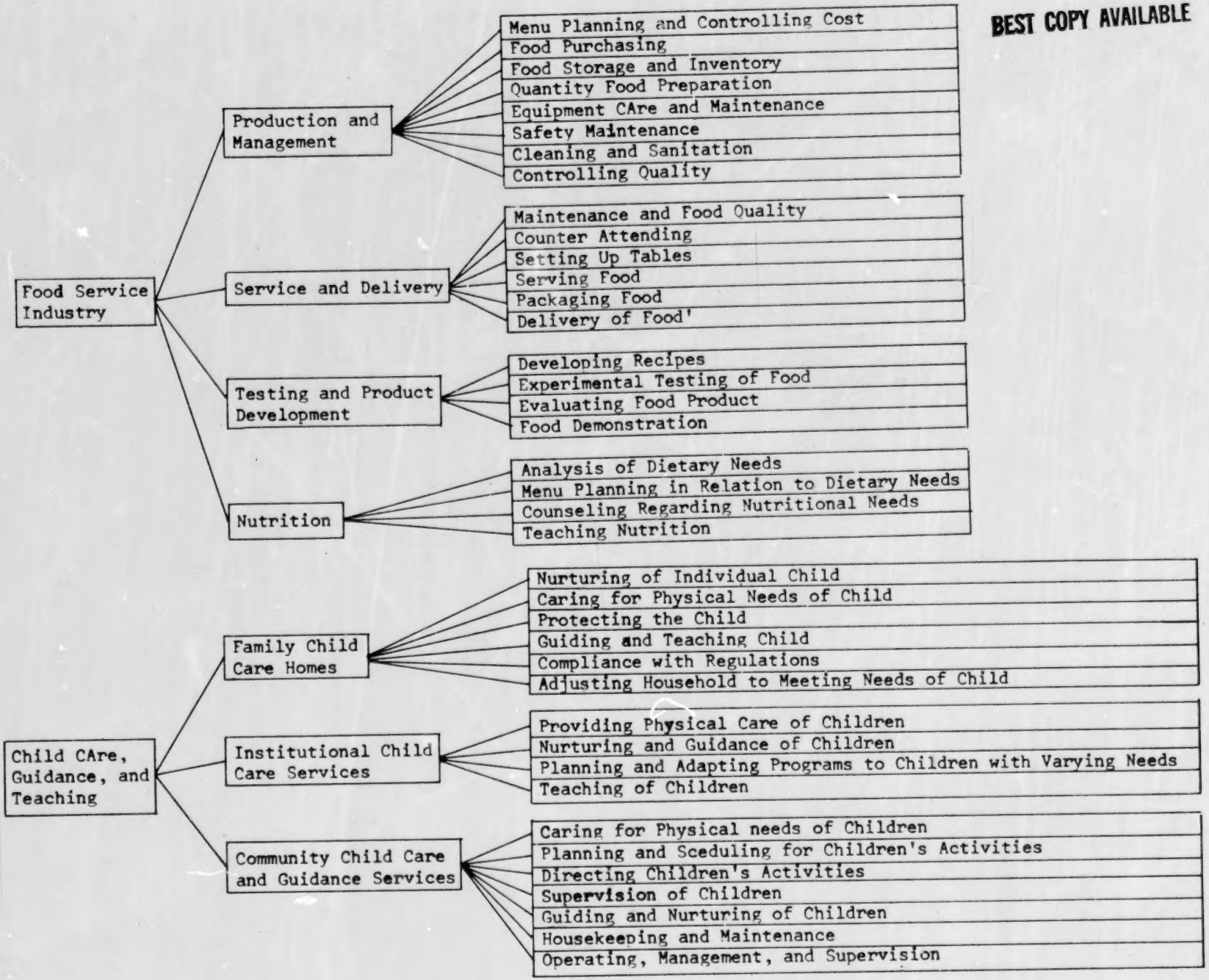
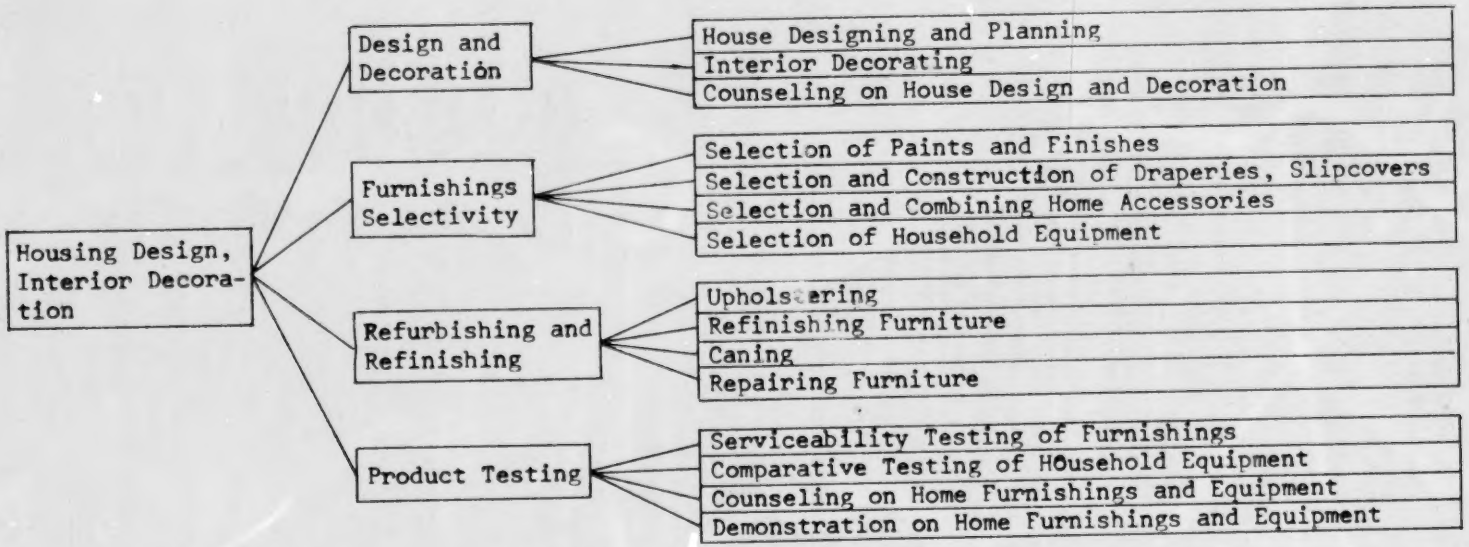
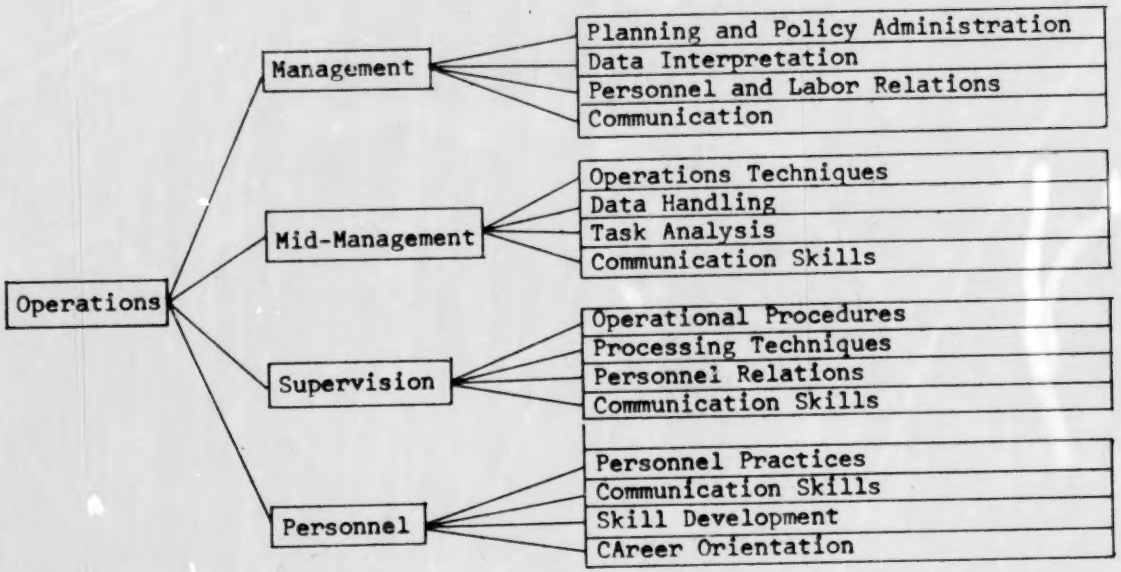
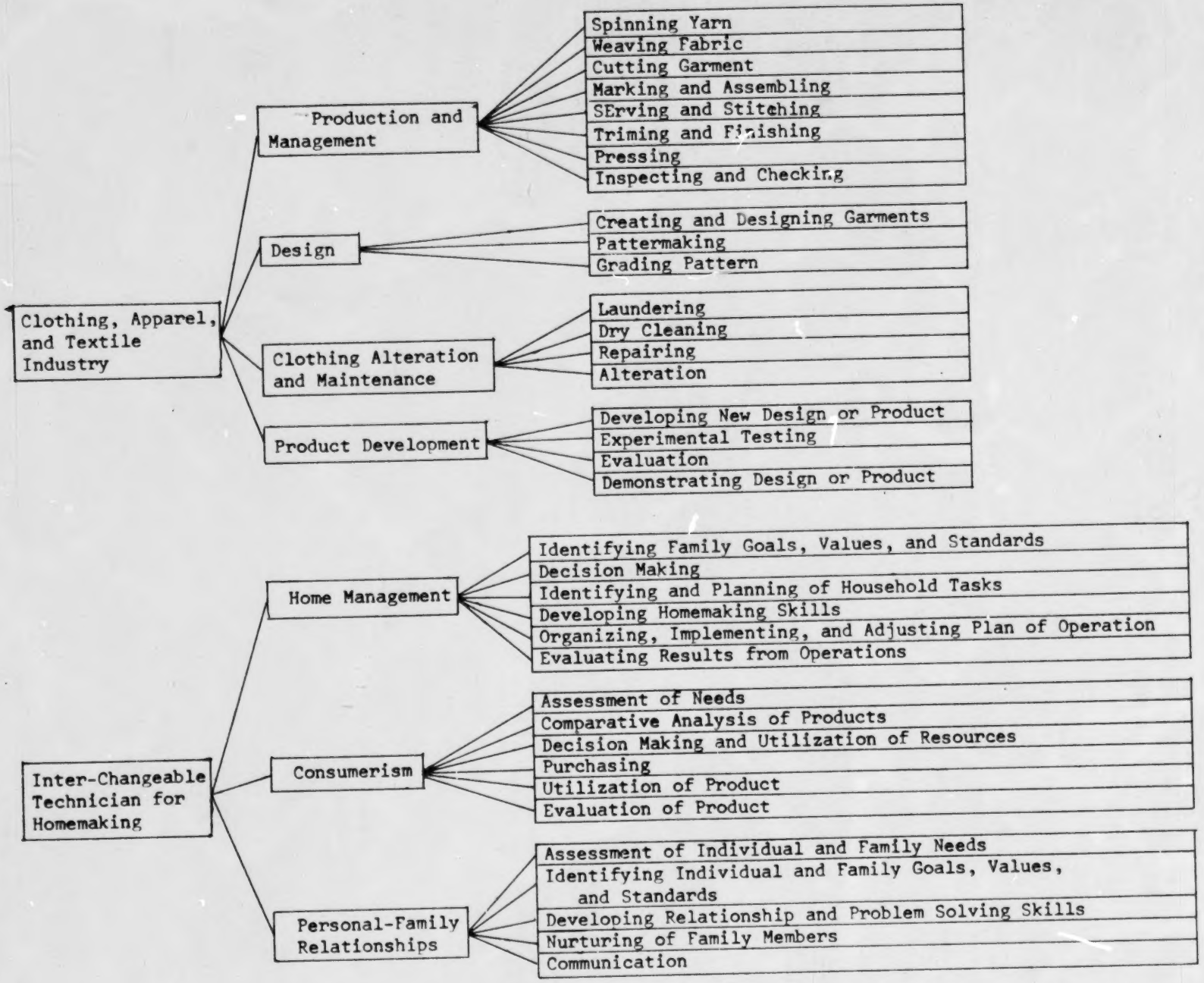


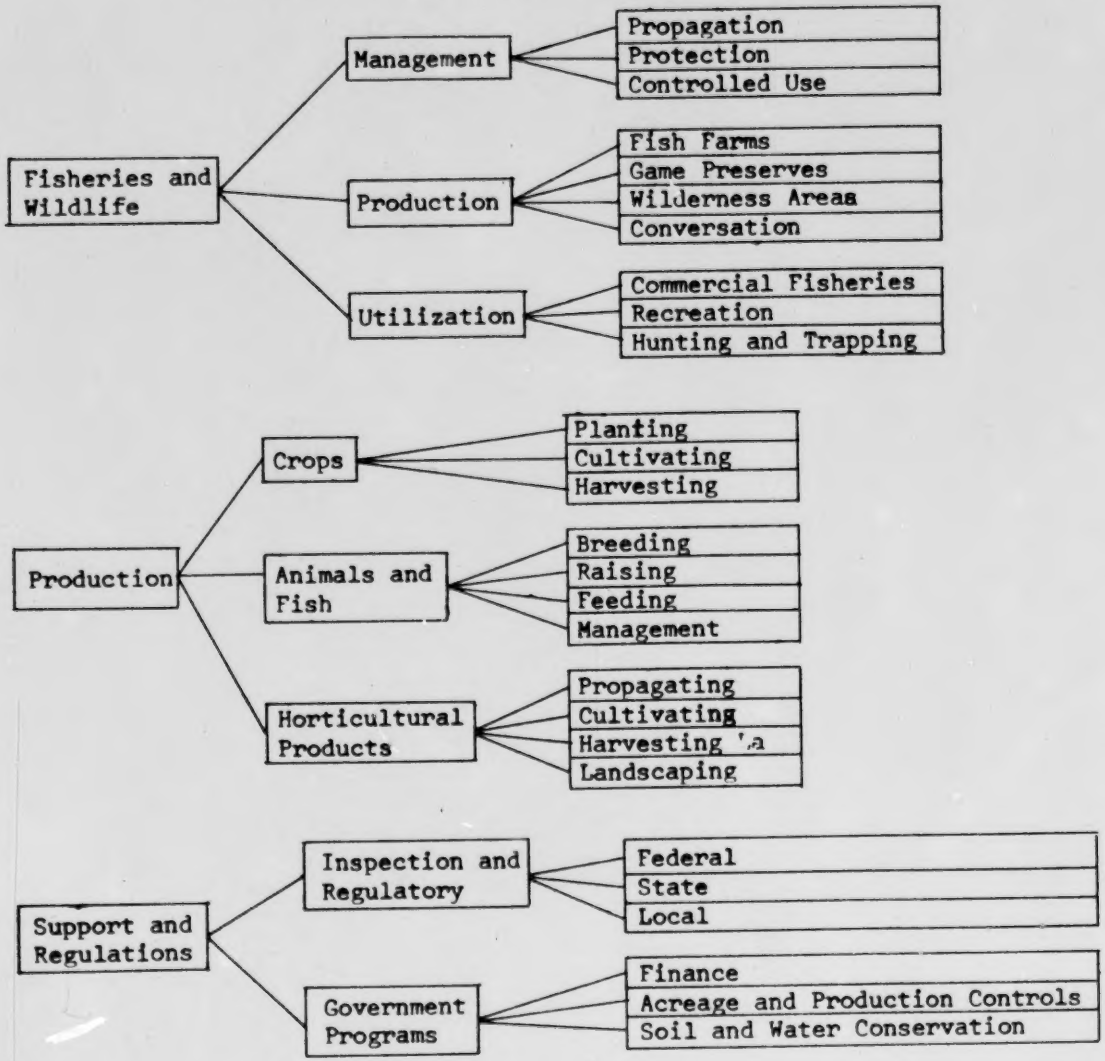

Housing Design, Interior Decoration
Design and Decoration
House Designing and Planning
Interior Decorating
Counseling on House Design and Decoration
Furnishings Selectivity
Selection of Paints and Finishes
Selection and Construction of Draperies, Slipcovers
Selection and Combining Home Accessories
Selection of Household Equipment
Refurbishing and Refinishing
Upholstering
Refinishing Furniture
Caning
Repairing Furniture
Product Testing
Serviceability Testing of Furnishings
Comparative Testing of Household Equipment
Counseling on Home Furnishings and Equipment
Demonstration on Home Furnishings and Equipment

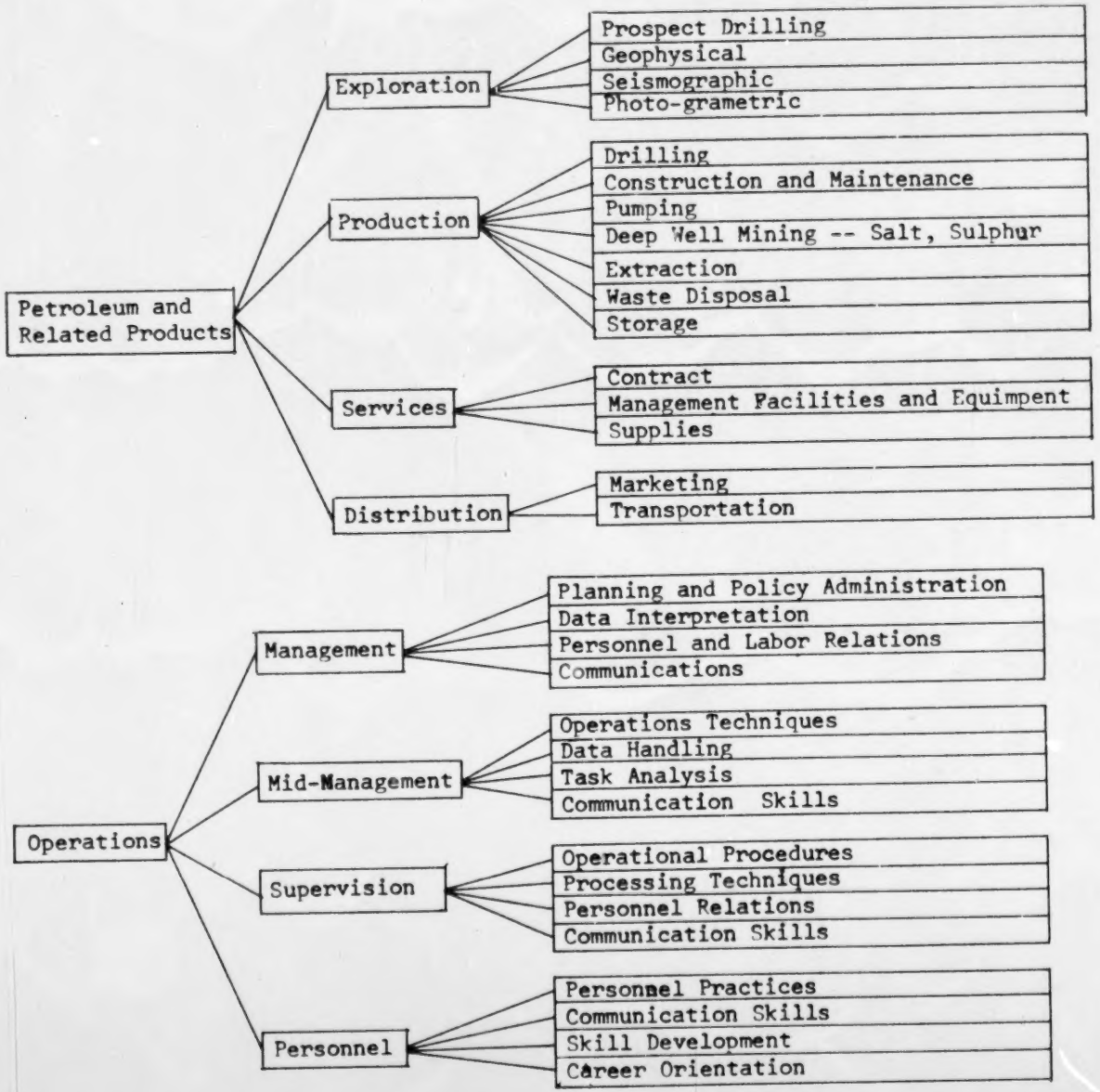

Operations
Management
Planning and Policy Administration
Data Interpretation
Personnel and Labor Relations
Communication
Mid-Management
Operations Techniques
Data Handling
Task Analysis
Communication Skills
Supervision
Operational Procedures
Processing Techniques
Personnel Relations
Communication Skills
Personnel
Personnel Practices
Communication Skills
Skill Development
CAreer Orientation

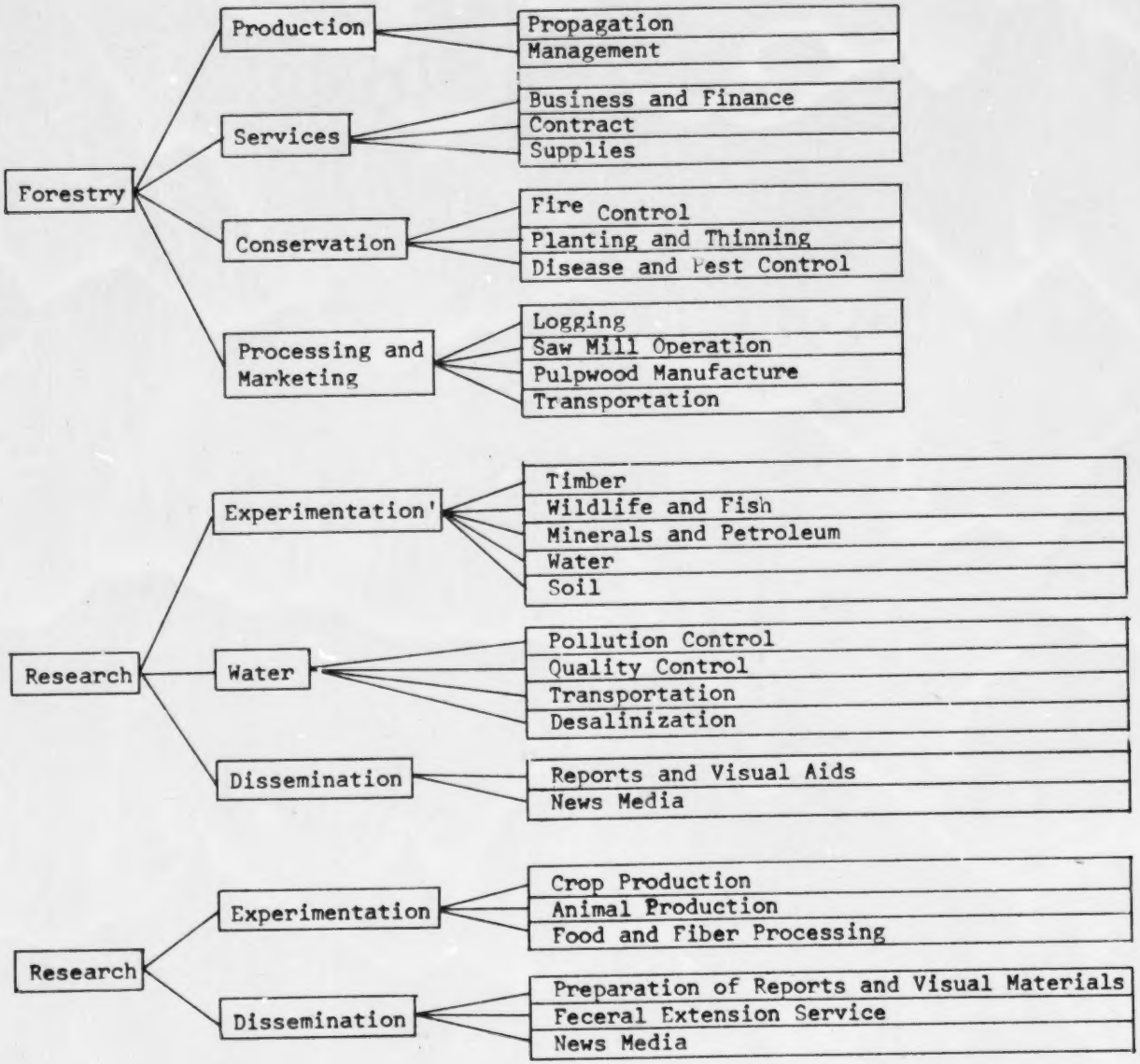

Clothing, Apparel, and Textile Industry
Production and Management
Spinning Yarn
Weaving Fabric
Cutting Garment
Marking and Assembling
SErving and Stitching
Triming and Finishing
Pressing
Inspecting and Checking
Design
Creating and Designing Garments
Pattermaking
Grading Pattern
Clothing Alteration and Maintenance
Laundering
Dry Cleaning
Repairing
Alteration
Product Development
Developing New Design or Product
Experimental Testing
Evaluation
Demonstrating Design or Product
Inter-Changeable Technician for Homemaking
Home Management
Identifying Family Goals, Values, and Standards
Decision Making
Identifying and Planning of Household Tasks
Developing Homemaking Skills
Organizing, Implementing, and Adjusting Plan of Operation
Evaluating Results from Operations
Consumerism
Assessment of Needs
Comparative Analysis of Products
Decision Making and Utilization of Resources
Purchasing
Utilization of Product
Evaluation of Product
Personal-Family Relationships
Assessment of Individual and Family Needs
Identifying Individual and Family Goals, Values, and Standards
Developing Relationship and Problem Solving Skills
Nurturing of Family Members
Communication

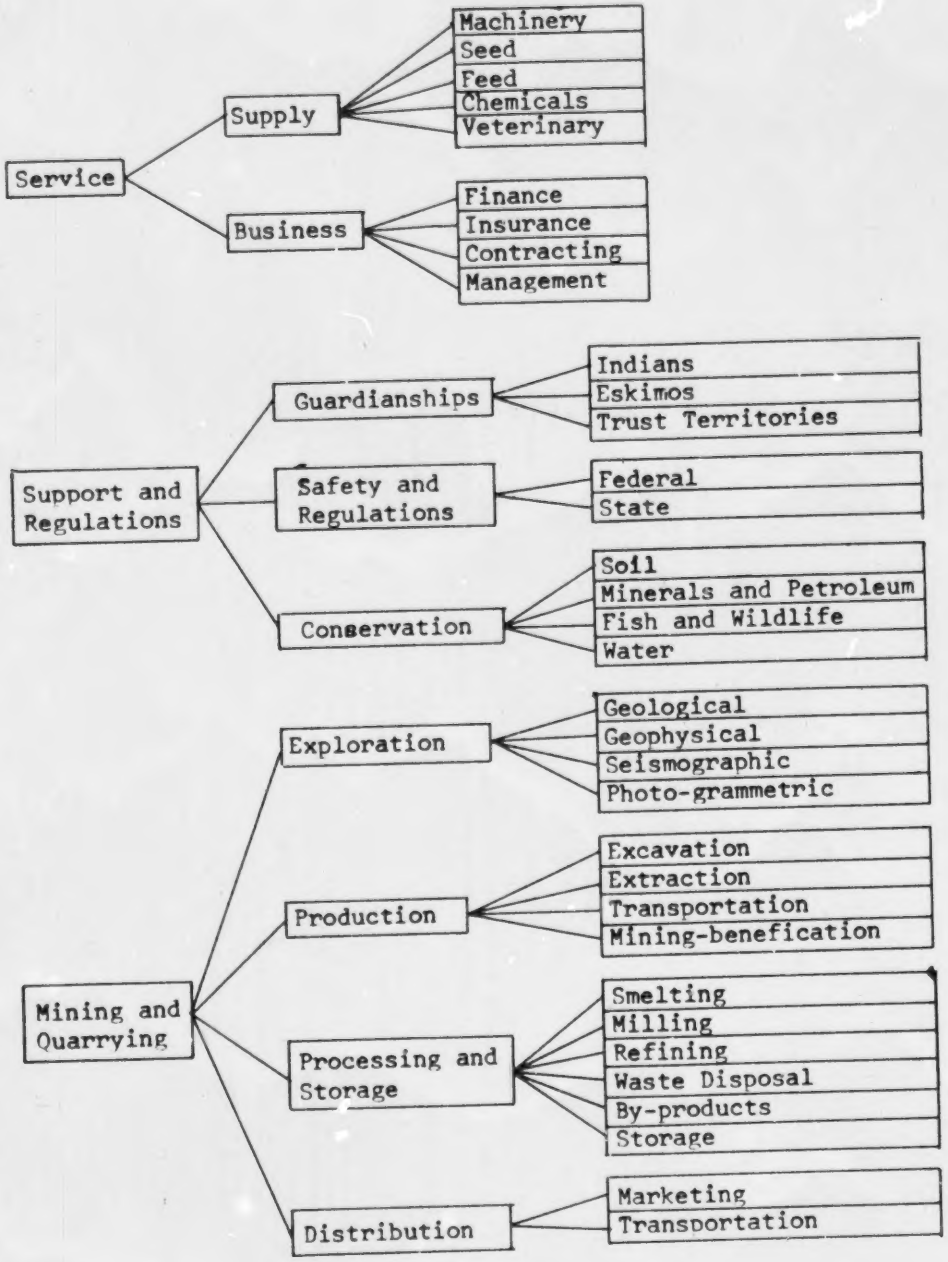
CLUSTER FOR

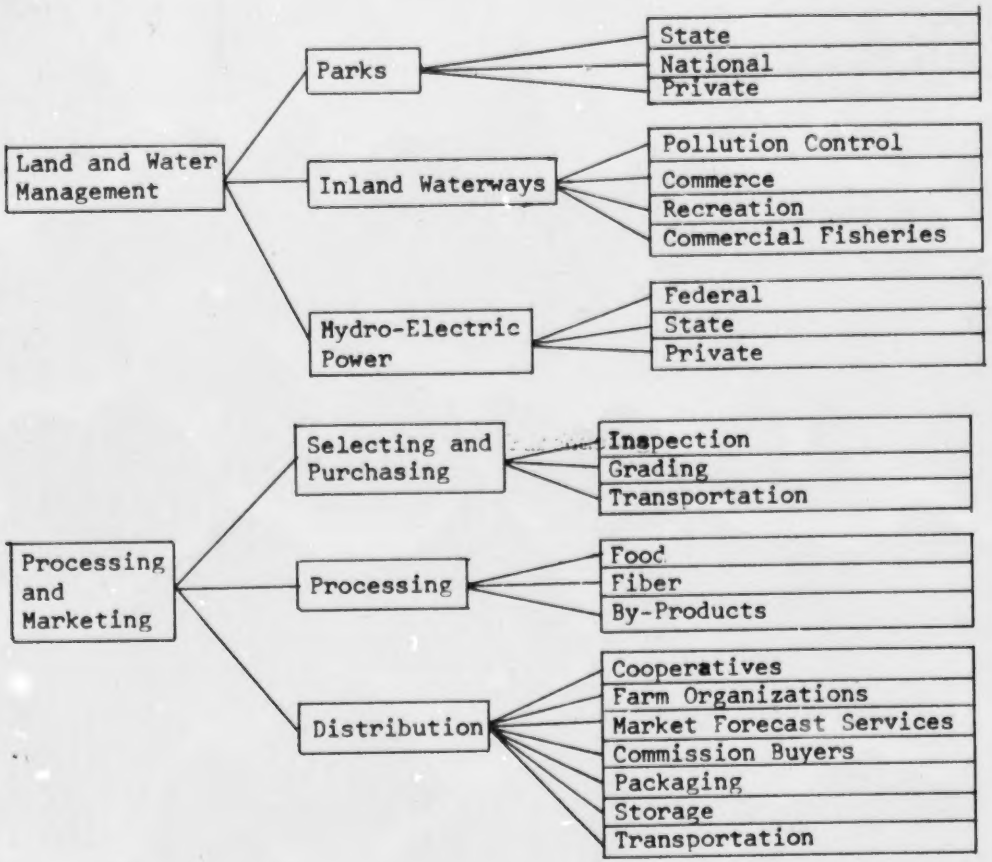
AGRI-BUSINESS AND NATURAL RESOURCES



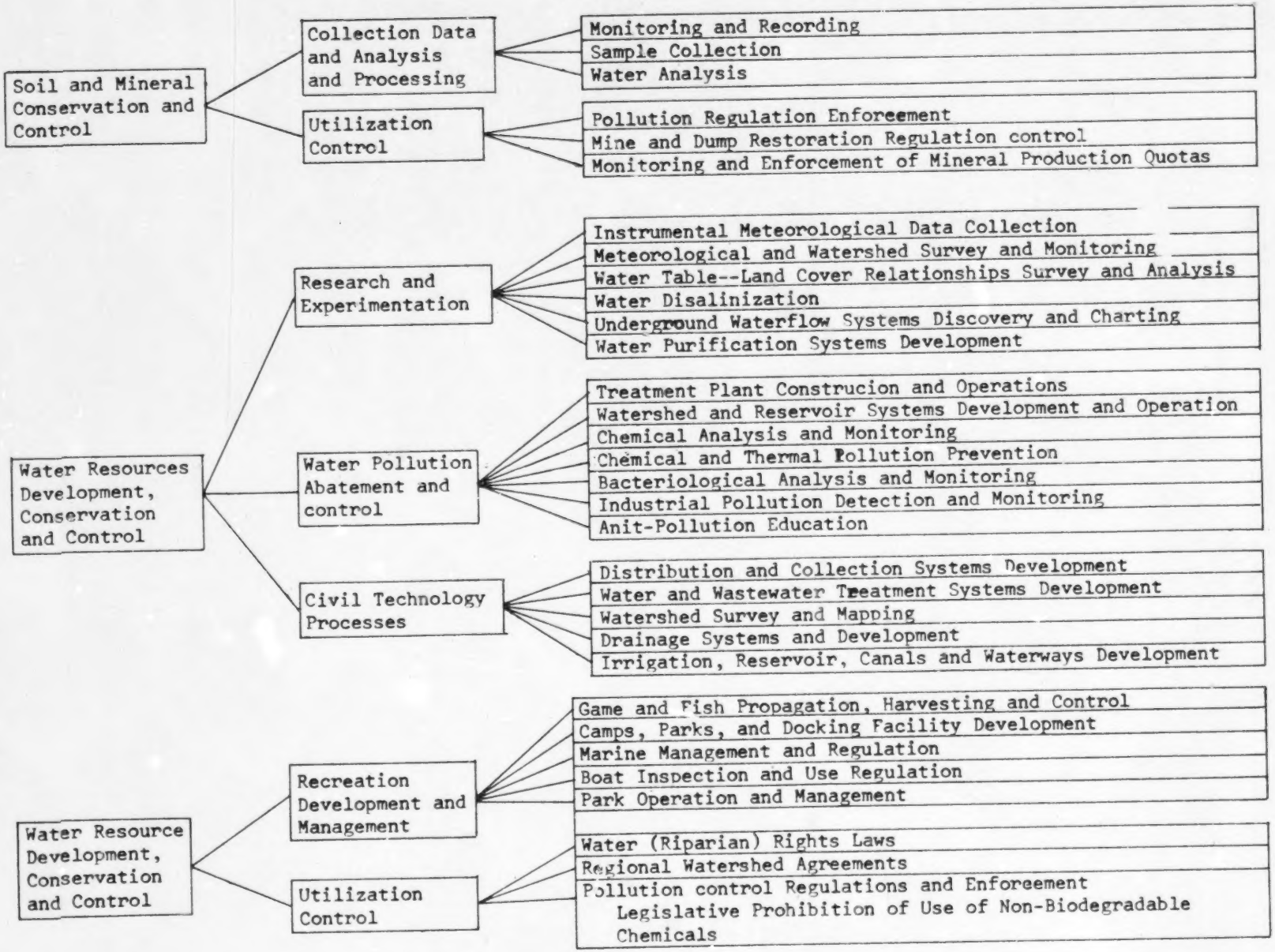

Petroleum and Related Products
Exploration
Prospect Drilling
Geophysical
Seismographic
Photo-grametric
Production
Drilling
Construction and Maintenance
Pumping
Deep Well Mining -- Salt, Sulphur
Extraction
Waste Disposal
Storage
Services
Contract
Management Facilities and Equimpent
Supplies
Distribution
Marketing
Transportation
Operations
Management
Planning and Policy Administration
Data Interpretation
Personnel and Labor Relations
Communications
Mid-Management
Operations Techniques
Data Handling
Task Analysis
Communication Skills
Supervision
Operational Procedures
Processing Techniques
Personnel Relations
Communication Skills
Personnel
Personnel Practices
Communication Skills
Skill Development
Career Orientation


Forestry
Production
Propagation
Management
Services
Business and Finance
Contract
Supplies
Conservation
Fire Control
Planting and Thinning
Disease and Pest Control
Processing and Marketing
Logging
Saw Mill Operation
Pulpwood Manufacture
Transportation
Research
Experimentation
Timber
Wildlife and Fish
Minerals and Petroleum
Water
Soil
Water
Pollution Control
Quality Control
Transportation
Desalinization
Dissemination
Reports and Visual Aids
News Media
Research
Experimentation
Crop Production
Animal Production
Food and Fiber Processing
Dissemination
Preparation of Reports and Visual Materials
Feceral Extension Service
News Media


Service
Supply
Machinery
Seed
Feed
Chemicals
Veterinary
Business
Finance
Insurance
Contracting
Management
Support and Regulations
Guardianships
Indians
Eskimos
Trust Territories
Safety and Regulations
Federal
State
Conservation
Soil
Minerals and Petroleum
Fish and Wildlife
Water
Mining and Quarrying
Exploration
Geological
Geophysical
Seismographic
Photo-grammetric
Production
Excavation
Extraction
Transportation
Mining-benefication
Processing and Storage
Smelting
Milling
Refining
Waste Disposal
By-products
Storage
Distribution
Marketing
Transportation


Land and Water Management
Parks
State
National
Private
Inland Waterways
Pollution Control
Commerce
Recreation
Commercial Fisheries
Hydro-Electric Power
Federal
State
Private
Processing and Marketing
Selecting and Purchasing
Inspection
Grading
Transportation
Processing
Food
Fiber
By-Products
Distribution
Cooperatives
Farm Organizations
Market Forecast Services
Commission Buyers
Packaging
Storage
Transportation

CLUSTER FOR ENVIRONMENT


Soil and Mineral Conservation and Control
Collection Data and Analysis and Processing
Monitoring and Recording
Sample Collection
Water Analysis
Utilization Control
Pollution Regulation Enforcement
Mine and Dump Restoration Regulation control
Monitoring and Enforcement of Mineral Production Quotas
Water Resources Development, Conservation and Control
Research and Experimentation
Instrumental Meteorological Data Collection
Meteorological and Watershed Survey and Monitoring
Water Table--Land Cover Relationships Survey and Analysis
Water Disalinization
Underground Waterflow Systems Discovery and Charting
Water Purification Systems Development
Water Pollution Abatement and control
Treatment Plant Construcion and Operations
Watershed and Reservoir Systems Development and Operation
Chemical Analysis and Monitoring
Chemical and Thermal Pollution Prevention
Bacteriological Analysis and Monitoring
Industrial Pollution Detection and Monitoring
Anit-Pollution Education
Civil Technology Processes
Distribution and Collection Systems Development
Water and Wastewater Treatment Systems Development
Watershed Survey and Mapping
Drainage Systems and Development
Irrigation, Reservoir, Canals and Waterways Development
Water Resource Development, Conservation and Control
Recreation Development and Management
Game and Fish Propagation, Harvesting and Control
Camps, Parks, and Docking Facility Development
Marine Management and Regulation
Boat Inspection and Use Regulation
Park Operation and Management
Utilization Control
Water (Riparian) Rights Laws
Regional Watershed Agreements
Pollution control Regulations and Enforcement
Legislative Prohibition of Use of Non-Biodegradable Chemicals

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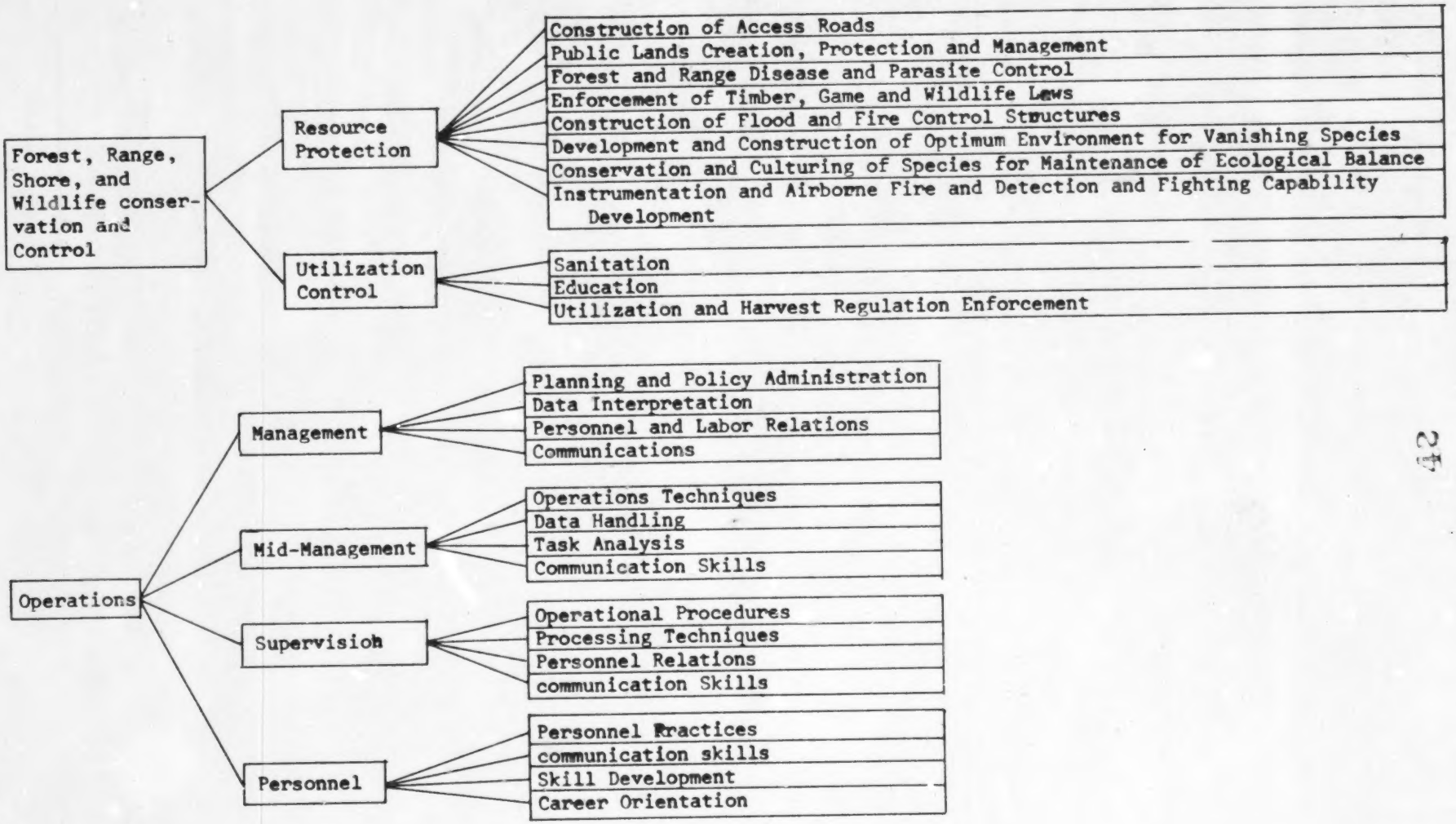
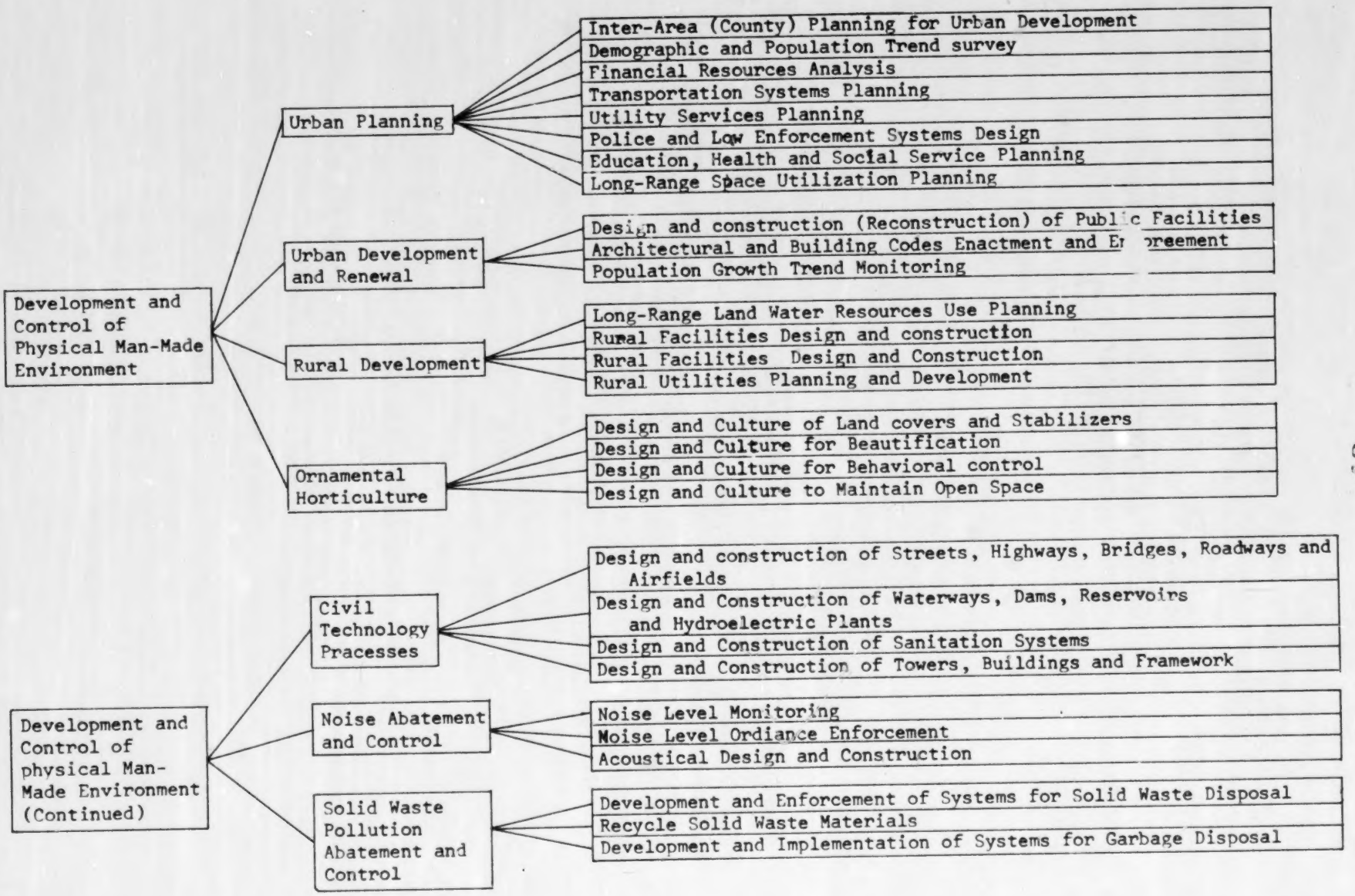
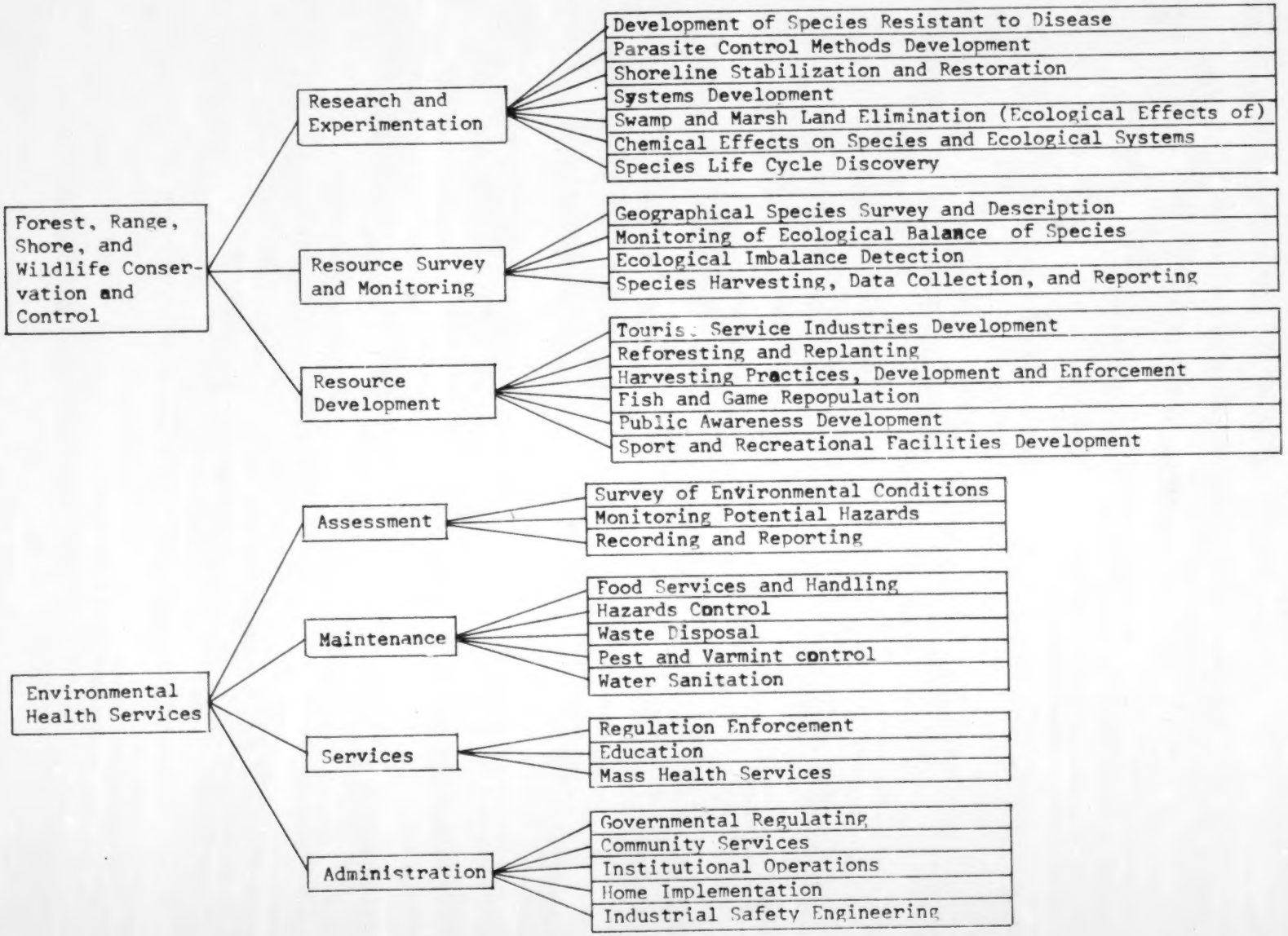



Development and Control of Physical Man-Made Environment
Urban Planning
Inter-Area (County) Planning for Urban Development
Demographic and Population Trend survey
Financial Resources Analysis
Transportation Systems Planning
Utility Services Planning
Police and Law Enforcement Systems Design
Education, Health and Social Service Planning
Long-Range Space Utilization Planning
Urban Development and Renewal
Design and construction (Reconstruction) of Public Facilities
Architectural and Building Codes Enactment and Enforcement
Population Growth Trend Monitoring
Rural Development
Long-Range Land Water Resources Use Planning
Rural Facilities Design and construction
Rural Facilities Design and Construction
Rural Utilities Planning and Development
Ornamental Horticulture
Design and Culture of Land covers and Stabilizers
Design and Culture for Beautification
Design and Culture for Behavioral control
Design and Culture to Maintain Open Space
Development and Control of physical Man-Made Environment (Continued)
Civil Technology Pracesses
Design and construction of Streets, Highways, Bridges, Roadways and Airfields
Design and Construction of Waterways, Dams, Reservoirs and Hydroelectric Plants
Design and Construction of Sanitation Systems
Design and Construction of Towers, Buildings and Framework
Noise Abatement and Control
Noise Level Monitoring
Noise Level Ordiance Enforcement
Acoustical Design and Construction
Solid Waste Pollution Abatement and Control
Development and Enforcement of Systems for Solid Waste Disposal
Recycle Solid Waste Materials
Development and Implementation of Systems for Garbage Disposal


Forest, Range, Shore, and Wildlife Conservation and Control
Research and Experimentation
Development of Species Resistant to Disease
Parasite Control Methods Development
Shoreline Stabilization and Restoration
Systems Development
Swamp and Marsh Land Elimination (Ecological Effects of)
Chemical Effects on Species and Ecological Systems
Species Life Cycle Discovery
Resource Survey and Monitoring
Geographical Species Survey and Description
Monitoring of Ecological Balance of Species
Ecological Imbalance Detection
Species Harvesting, Data Collection, and Reporting
Resource Development
Tourist Service Industries Development
Reforesting and Replanting
Harvesting Practices, Development and Enforcement
Fish and Game Repopulation
Public Awareness Development
Sport and Recreational Facilities Development
Environmental Health Services
Assessment
Survey of Environmental Conditions
Monitoring Potential Hazards
Recording and Reporting
Maintenance
Food Services and Handling
Hazards Control
Waste Disposal
Pest and Varmint control
Water Sanitation
Services
Regulation Enforcement
Education
Mass Health Services
Administration
Governmental Regulating
Community Services
Institutional Operations
Home Implementation
Industrial Safety Engineering

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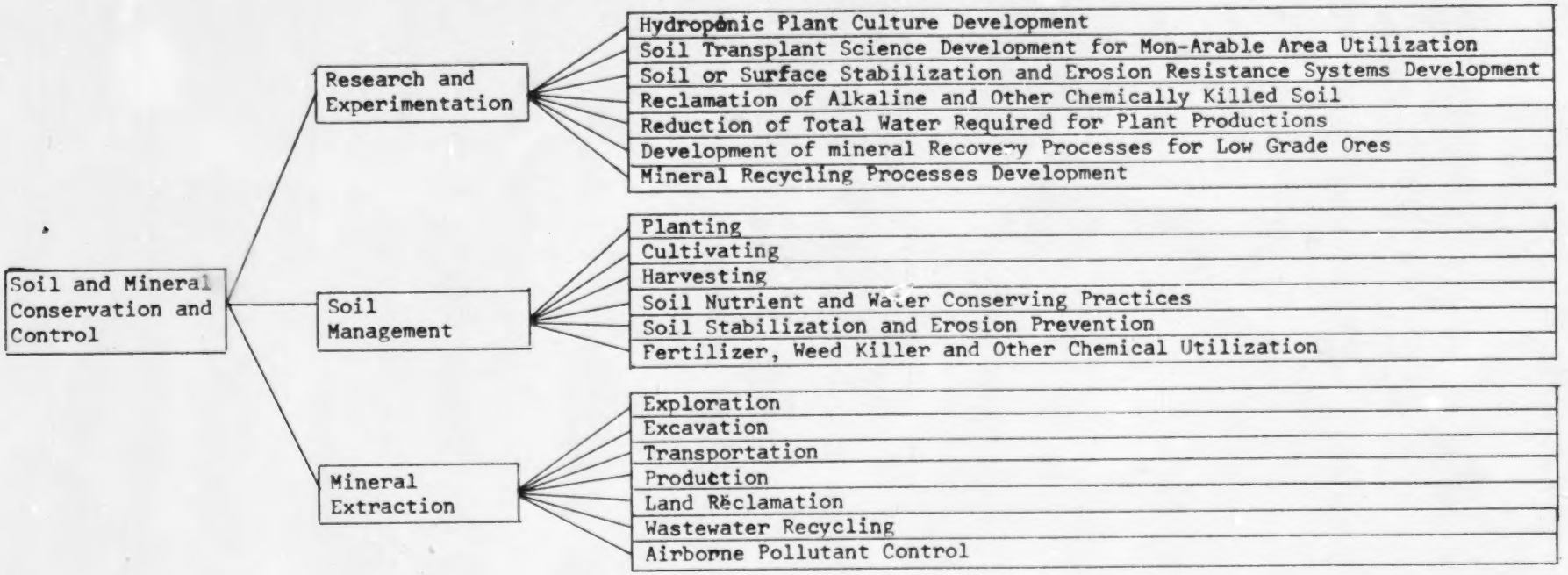
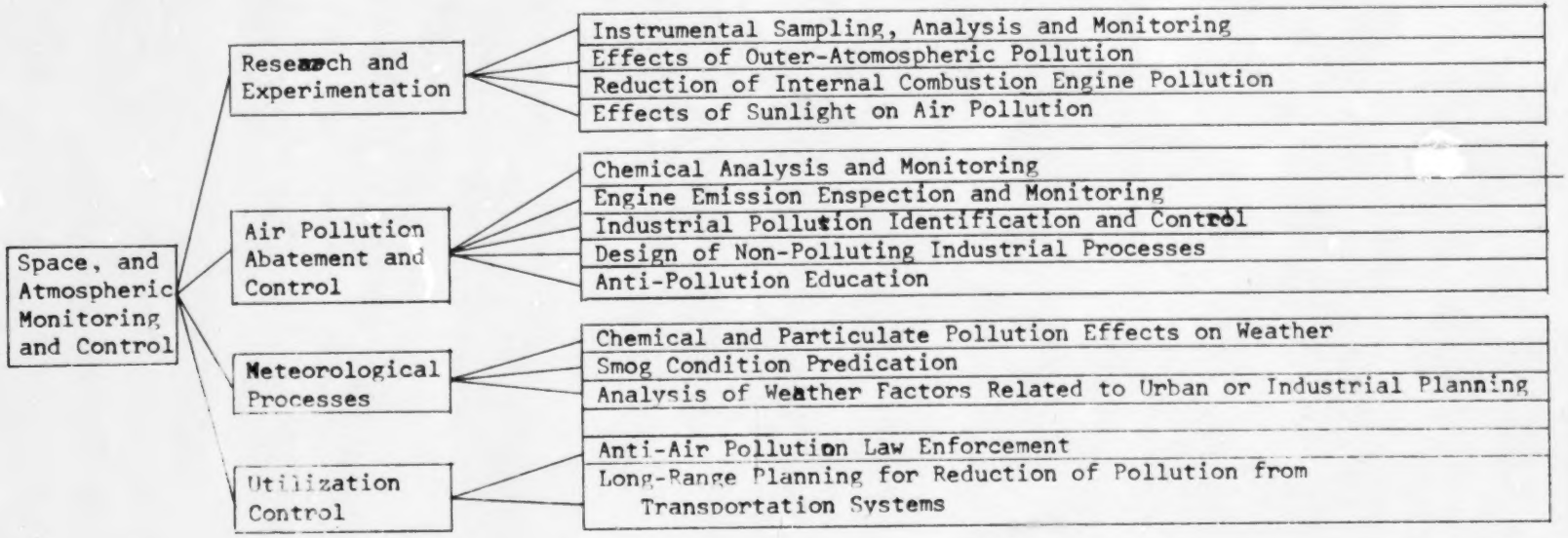
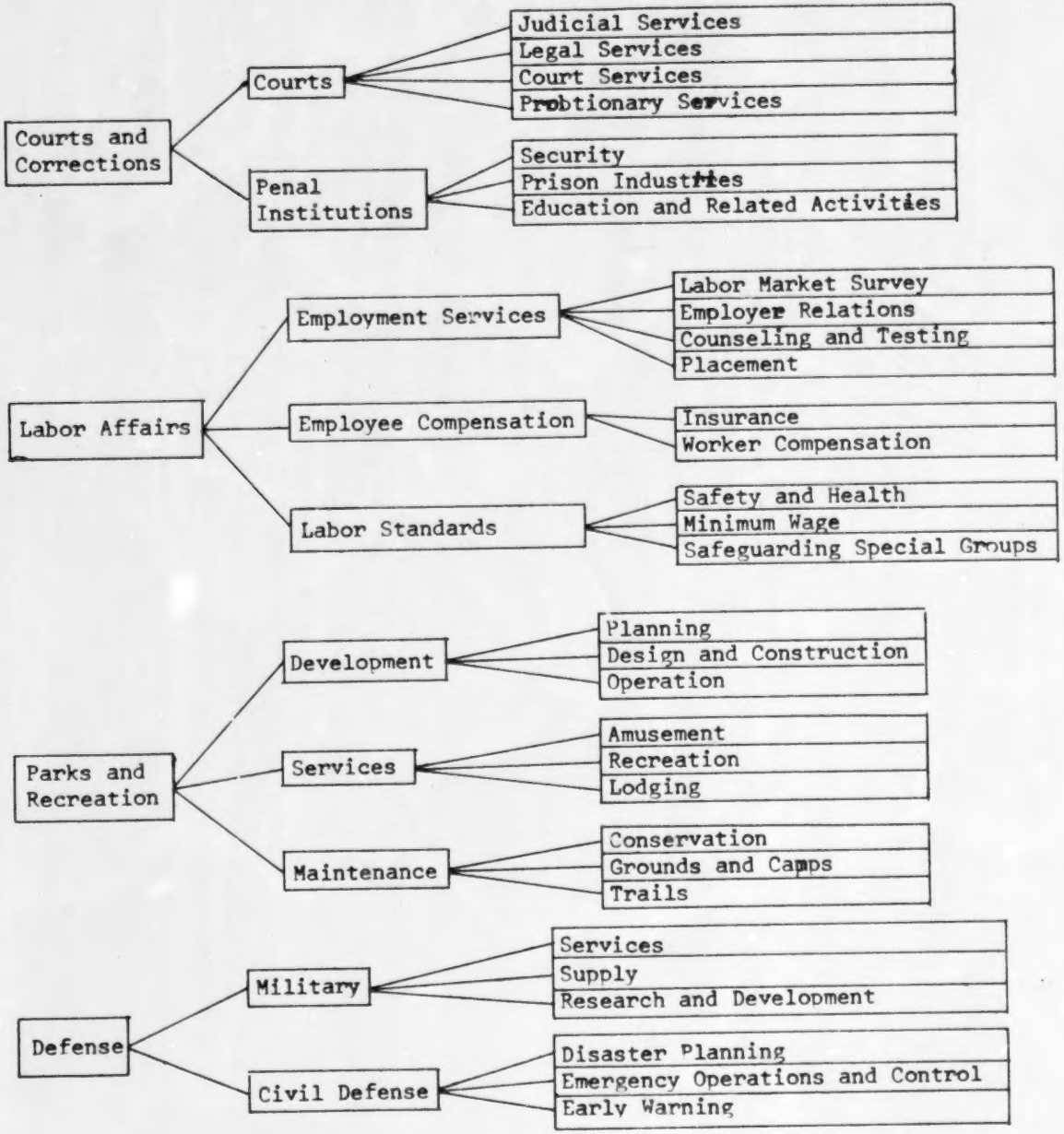
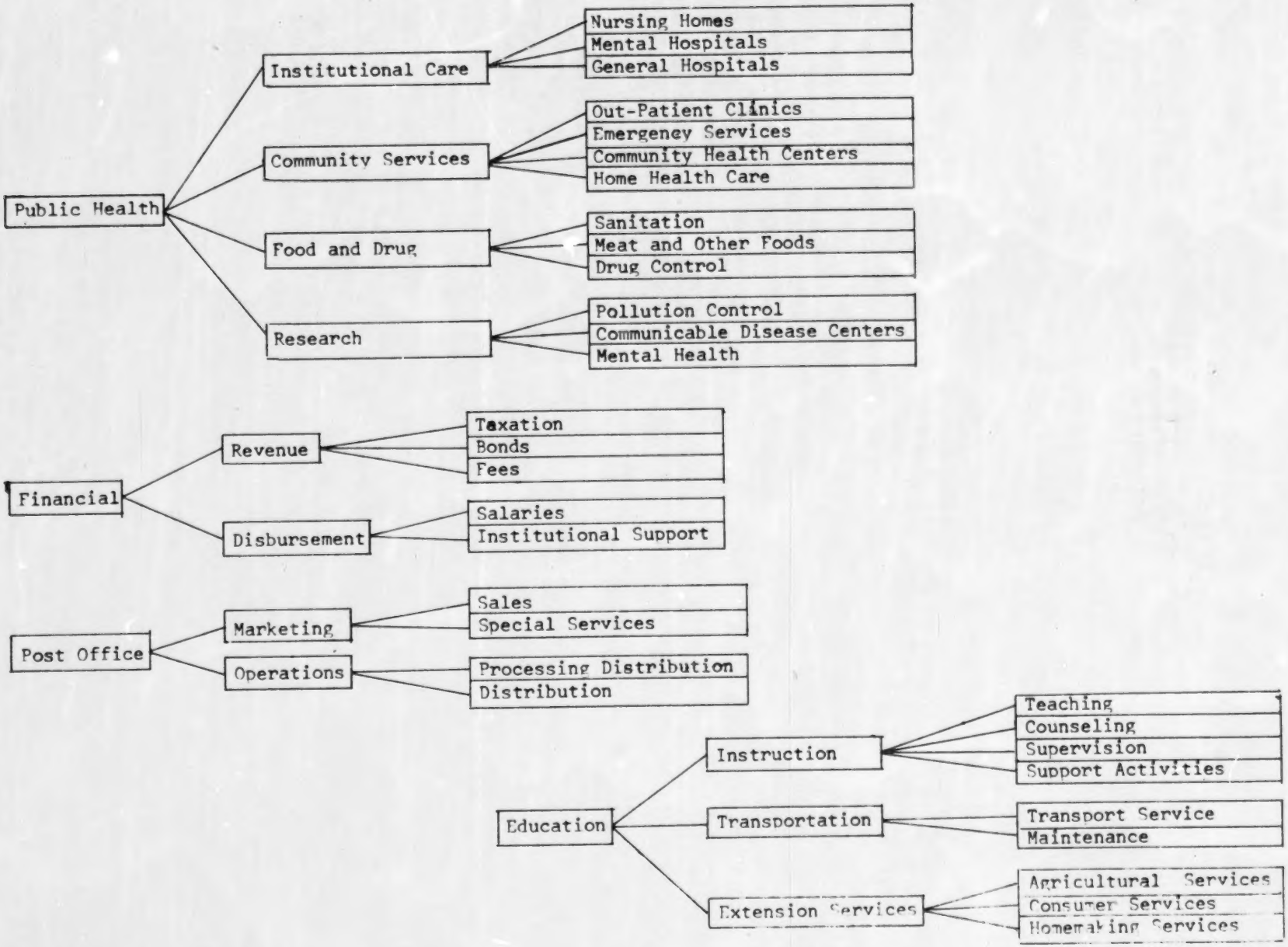
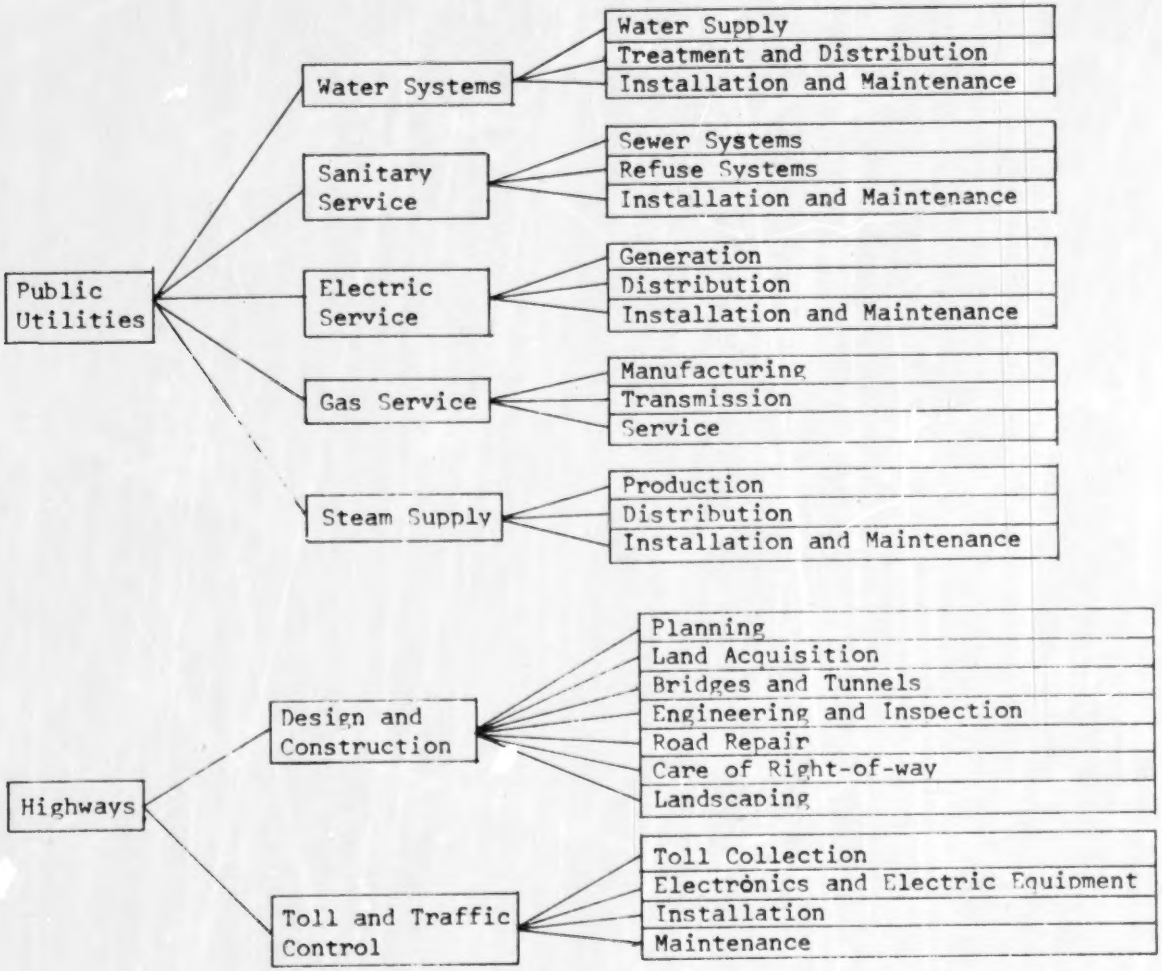

Soil and Mineral Conservation and Control
Research and Experimentation
Hydroponic Plant Culture Development
Soil Transplant Science Development for Mon-Arable Area Utilization
Soil or Surface Stabilization and Erosion Resistance Systems Development
Reclamation of Alkaline and Other Chemically Killed Soil
Reduction of Total Water Required for Plant Productions
Development of mineral Recovery Processes for Low Grade Ores
Mineral Recycling Processes Development
Soil Management
Planting
Cultivating
Harvesting
Soil Nutrient and Water Conserving Practices
Soil Stabilization and Erosion Prevention
Fertilizer, Weed Killer and Other Chemical Utilization
Mineral Extraction
Exploration
Excavation
Transportation
Production
Land Reclamation
Wastewater Recycling
Airborne Pollutant Control

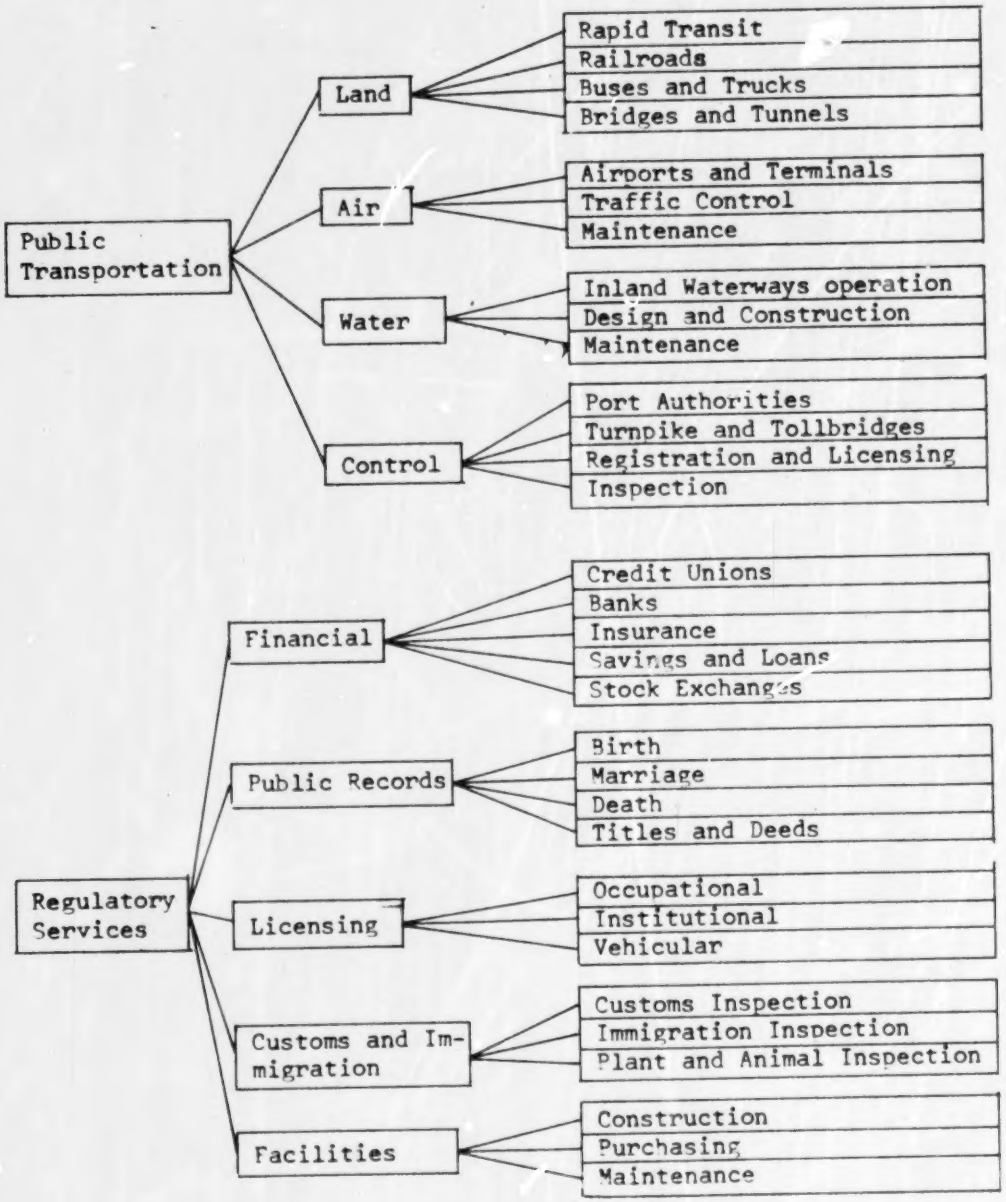

Space, and Atmospheric Monitoring and Control
Research and Experimentation
Instrumental Sampling, Analysis and Monitoring
Effects of Outer-Atomospheric Pollution
Reduction of Internal Combustion Engine Pollution
Effects of Sunlight on Air Pollution
Air Pollution Abatement and Control
Chemical Analysis and Monitoring
Engine Emission Enspection and Monitoring
Industrial Pollution Identification and Control
Design of Non-Polluting Industrial Processes
Anti-Pollution Education
Meteorological Processes
Chemical and Particulate Pollution Effects on Weather
Smog Condition Predication
Analysis of Weather Factors Related to Urban or Industrial Planning
Utilization Control
Anti-Air Pollution Law Enforcement
Long-Range Planning for Reduction of Pollution from Transportation Systems

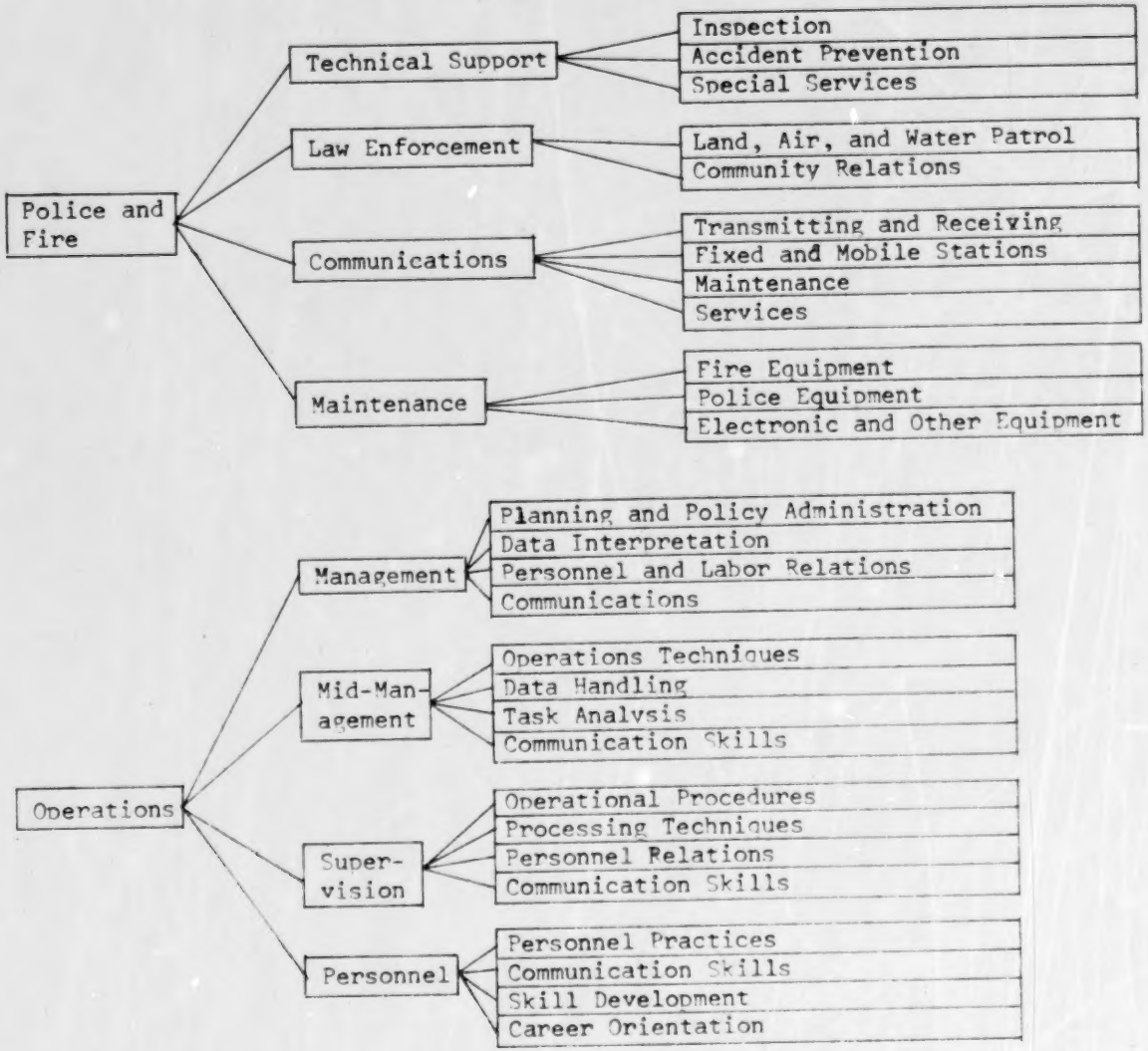
CLUSTER FOR PUBLIC SERVICE

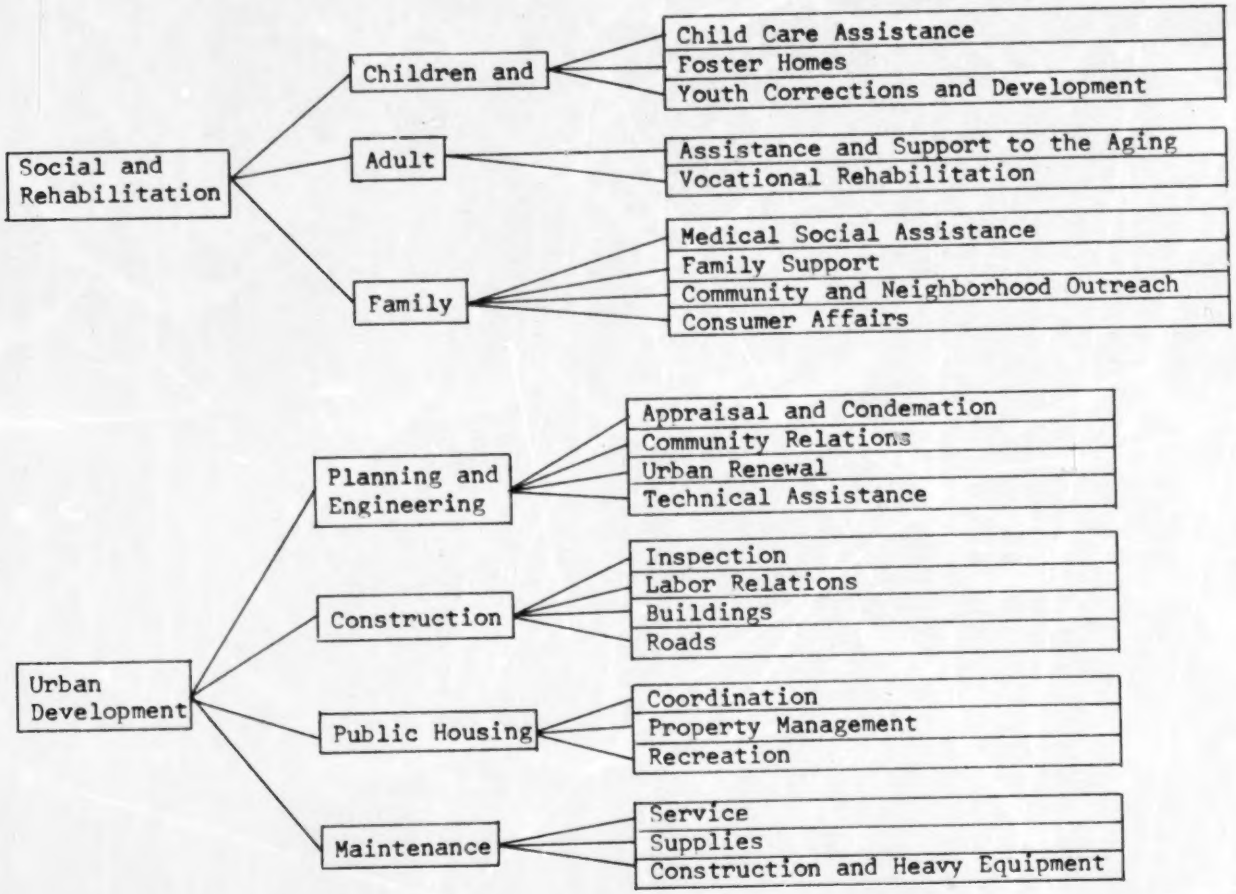



Public Health
Institutional Care
Nursing Homes
Mental Hospitals
General Hospitals
Community Services
Out-Patient Clinics
Emergency Services
Community Health Centers
Home Health Care
Food and Drug
Sanitation
Meat and Other Foods
Drug Control
Research
Pollution Control
Communicable Disease Centers
Mental Health
Financial
Revenue
Taxation
Bonds
Fees
Disbursement
Salaries
Institutional Support
Post Office
Marketing
Sales
Special Services
Operations
Processing Distribution
Distribution
Education
Instruction
Teaching
Counseling
Supervision
Support Activities
Transportation
Transport Service
Maintenance
Extension Services
Agricultural Services
Consumer Services
Homemaking Services

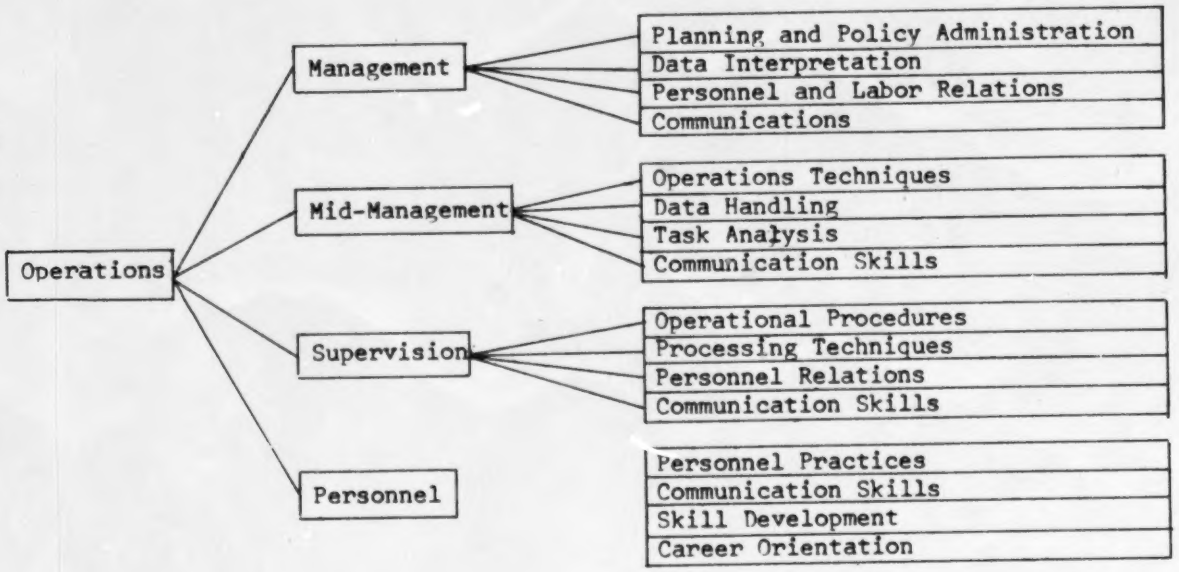

Public Utilities
Water Systems
Water Supply
Treatment and Distribution
Installation and Maintenance
Sanitary Service
Sewer Systems
Refuse Systems
Installation and Maintenance
Electric Service
Generation
Distribution
Installation and Maintenance
Gas Service
Manufacturing
Transmission
Service
Steam Supply
Production
Distribution
Installation and Maintenance
Highways
Design and Construction
Planning
Land Acquisition
Bridges and Tunnels
Engineering and Inspection
Road Repair
Care of Right-of-way
Landscaping
Toll and Traffic Control
Toll Collection
Electronics and Electric Equipment
Installation
Maintenance

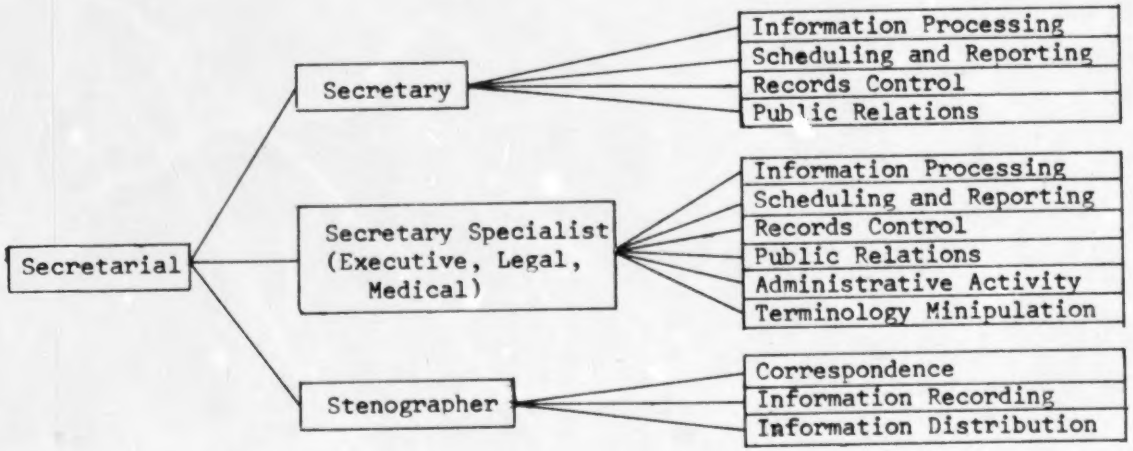

Public Transportation
Land
Rapid Transit
Railroads
Buses and Trucks
Bridges and Tunnels
Air
Airports and Terminals
Traffic Control
Maintenance
Water
Inland Waterways operation
Design and Construction
Maintenance
Control
Port Authorities
Turnpike and Tollbridges
Registration and Licensing
Inspection
Regulatory Services
Financial
Credit Unions
Banks
Insurance
Savings and Loans
Stock Exchanges
Public Records
Birth
Marriage
Death
Titles and Deeds
Licensing
Occupational
Institutional
Vehicular
Customs and Immigration
Customs Inspection
Immigration Inspection
Plant and Animal Inspection
Facilities
Construction
Purchasing
Maintenance

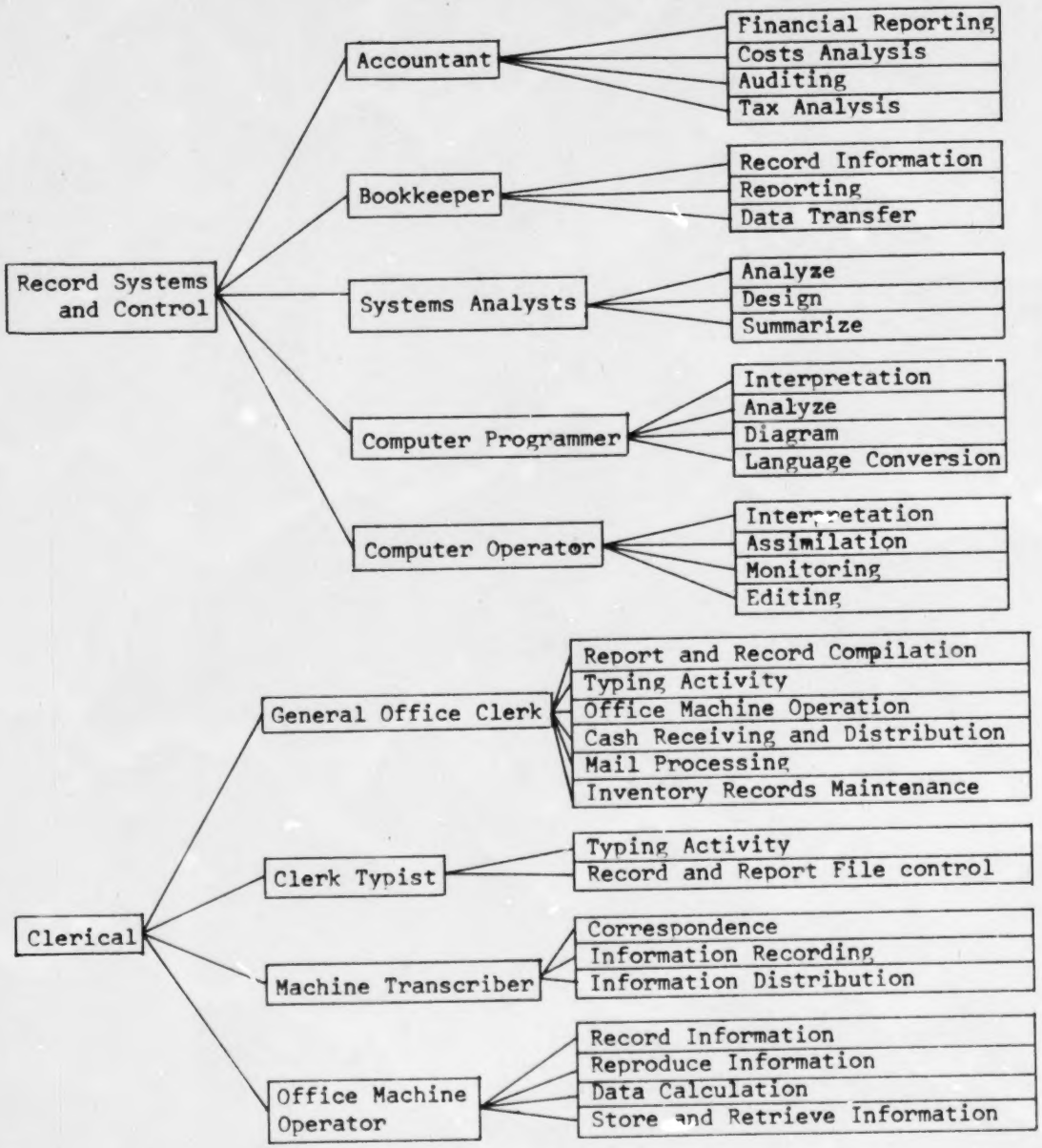

Police and Fire
Technical Support
Inspection
Accident Prevention
Special Services
Law Enforcement
Land, Air, and Water Patrol
Community Relations
Communications
Transmitting and Receiving
Fixed and Mobile Stations
Maintenance
Services
Maintenance
Fire Equipment
Police Equipment
Electronic and Other Equipment
Operations
Management
Planning and Policy Administration
Data Interpretation
Personnel and Labor Relations
Communications
Mid-Management
Operations Techniques
Data Handling
Task Analysis
Communication Skills
Supervision
Operational Procedures
Processing Techniques
Personnel Relations
Communication Skills
Personnel
Personnel Practices
Communication Skills
Skill Development
Career Orientation

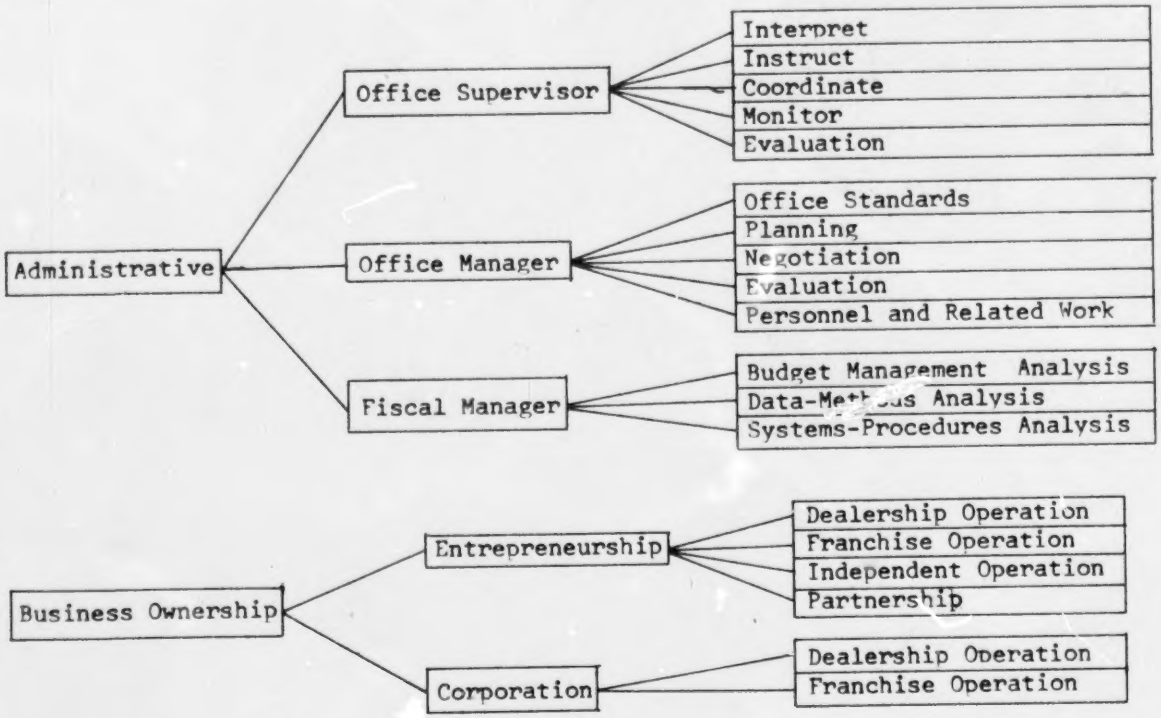

Social and Rehabilitation
Children and
Child Care Assistance
Foster Homes
Youth Corrections and Development
Adult
Assistance and Support to the Aging
Vocational Rehabilitation
Family
Medical Social Assistance
Family Support
Community and Neighborhood Outreach
Consumer Affairs
Urban Development
Planning and Engineering
Appraisal and Condemation
Community Relations
Urban Renewal
Technical Assistance
Construction
Inspection
Labor Relations
Buildings
Roads
Public Housing
Coordination
Property Management
Recreation
Maintenance
Service
Supplies
Construction and Heavy Equipment

CLUSTER FOR
BUSINESS AND OFFICE OCCUPATIONS

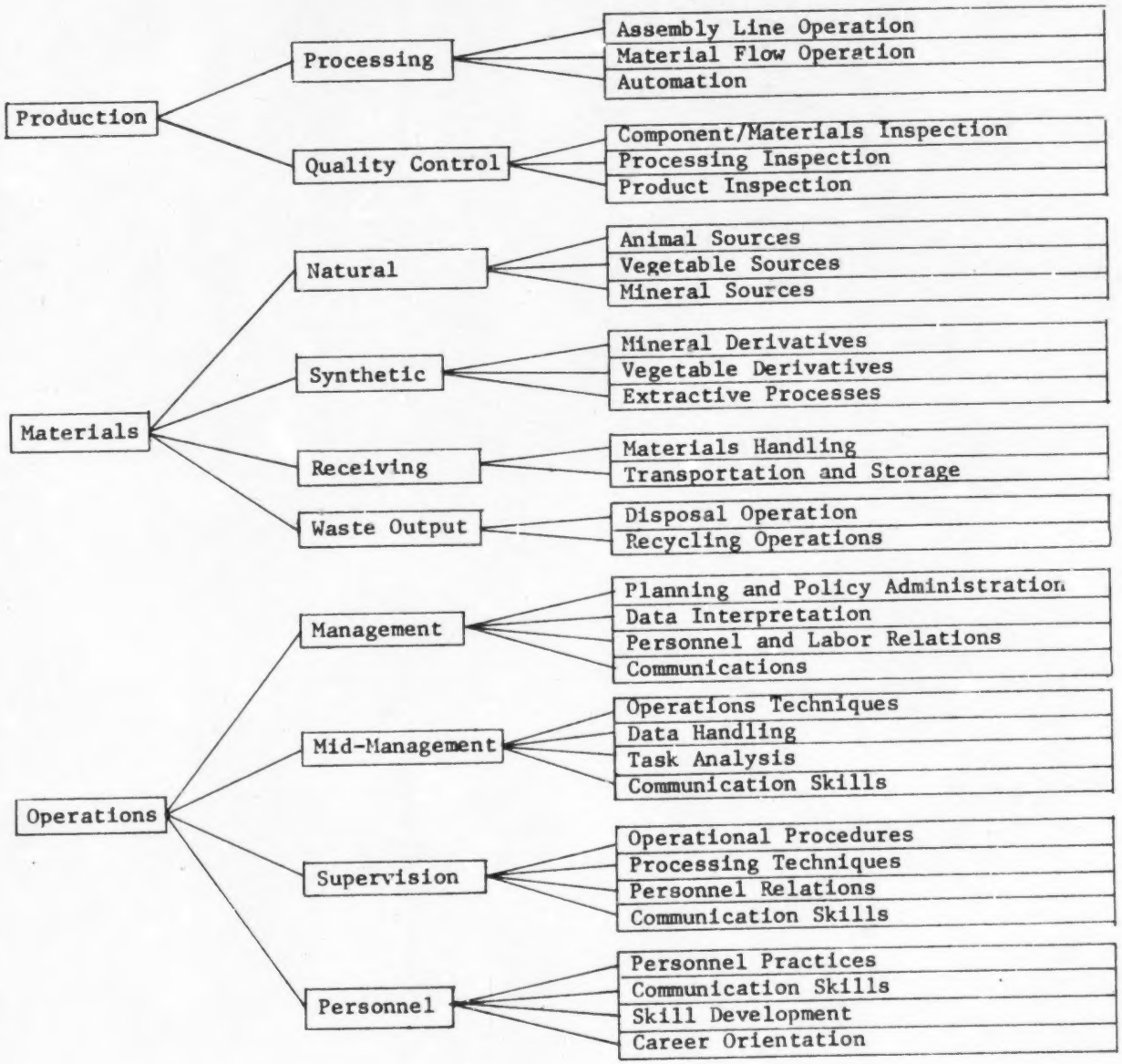


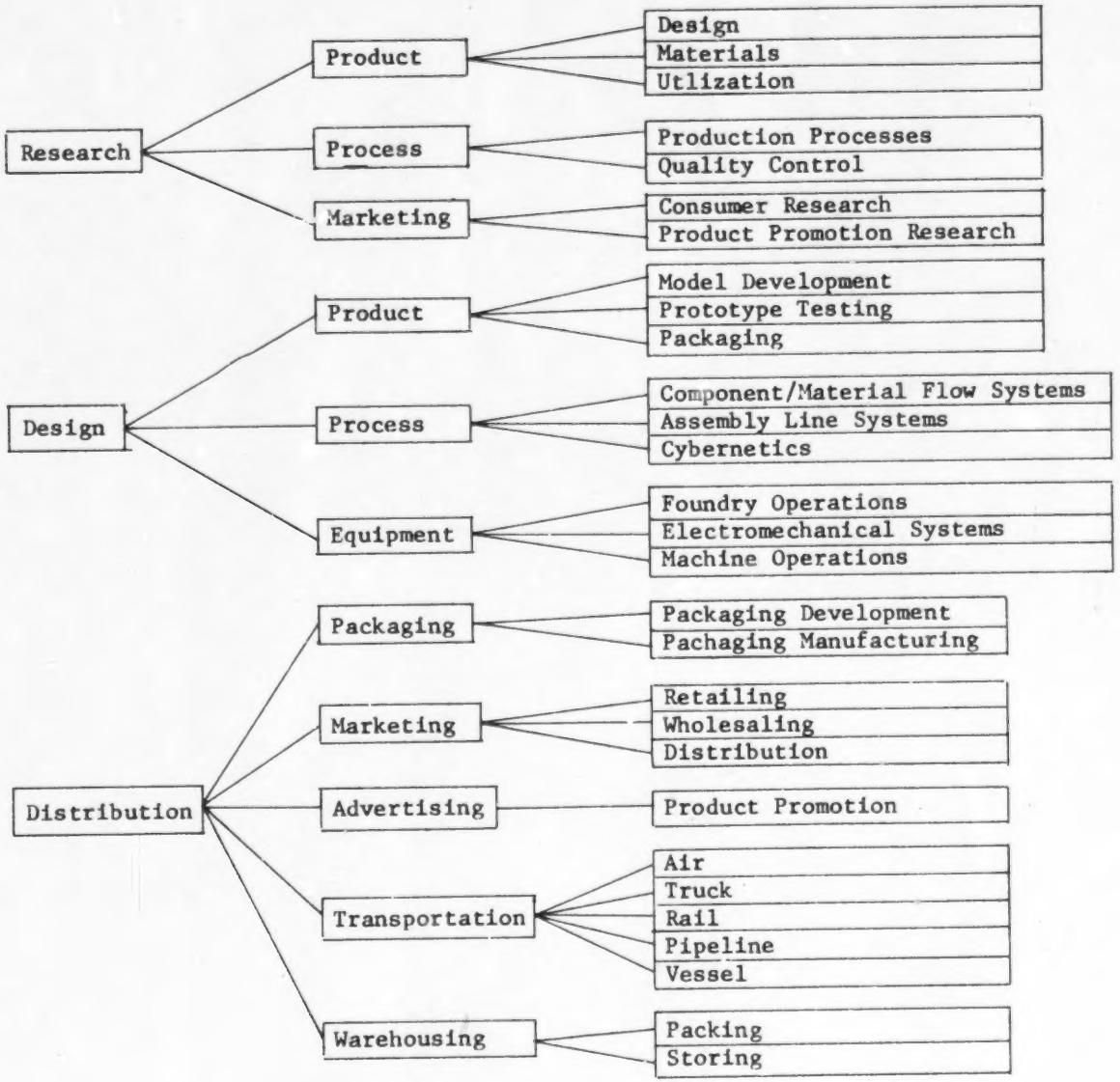



Record Systems and Control
Accountant
Financial Reporting
Costs Analysis
Auditing
Tax Analysis
Bookkeeper
Record Information
Reporting
Data Transfer
Systems Analysts
Analyze
Design
Summarize
Computer Programmer
Interpretation
Analyze
Diagram
Language Conversion
Computer Operator
Interpretation
Assimilation
Monitoring
Editing
Clerical
General Office Clerk
Report and Record Compilation
Typing Activity
Office Machine Operation
Cash Receiving and Distribution
Mail Processing
Inventory Records Maintenance
Clerk Typist
Typing Activity
Record and Report File control
Machine Transcriber
Correspondence
Information Recording
Information Distribution
Office Machine Operator
Record Information
Reproduce Information
Data Calculation
Store and Retrieve Information

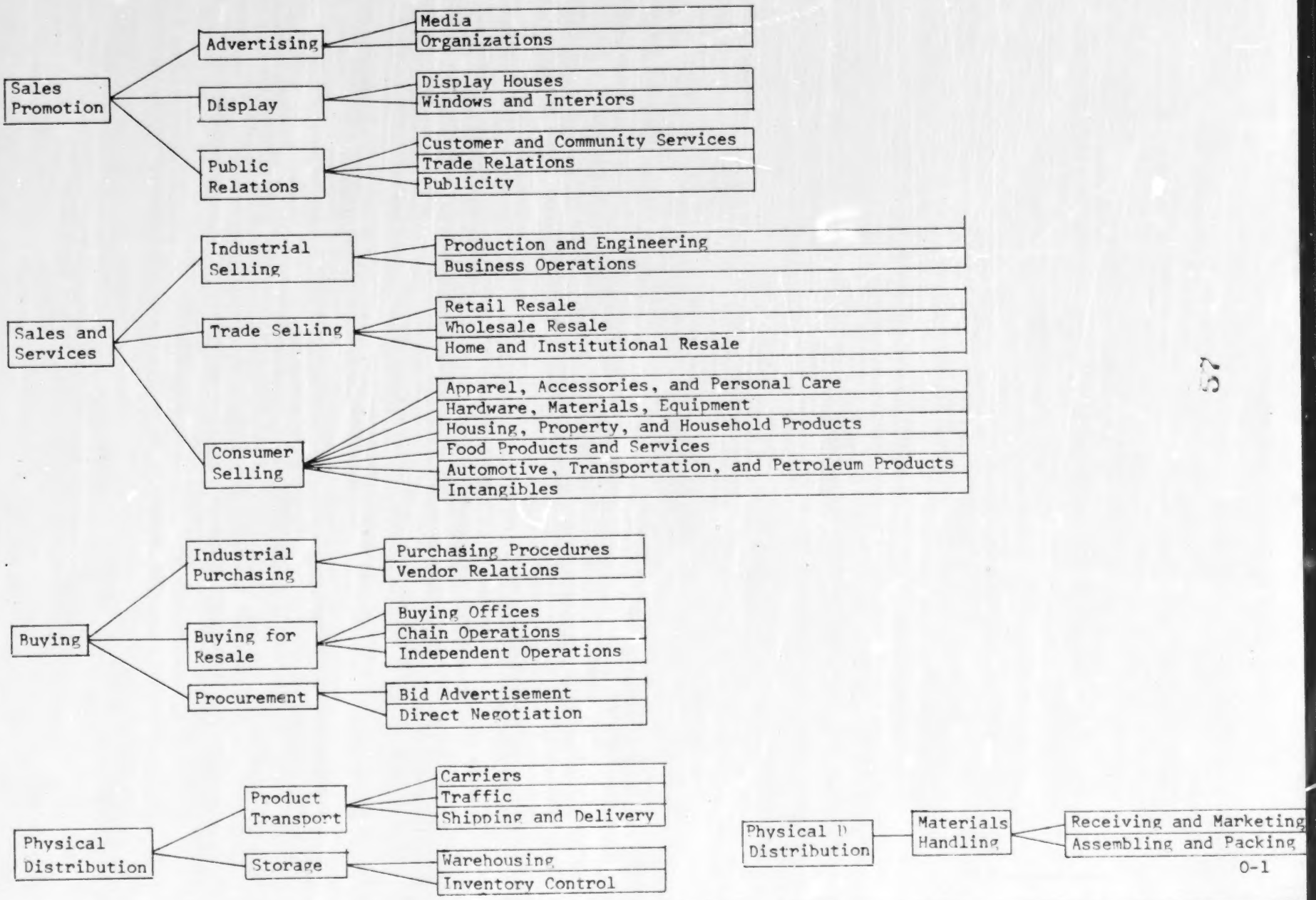

Administrative
Office Supervisor
Interpret
Instruct
Coordinate
Monitor
Evaluation
Office Manager
Office Standards
Planning
Negotiation
Evaluation
Personnel and Related Work
Fiscal Manager
Budget Management Analysis
Data-Methods Analysis
Systems-Procedures Analysis
Business Ownership
Entrepreneurship
Dealership Operation
Franchise Operation
Independent Operation
Partnership
Corporation
Dealership Operation
Franchise Operation

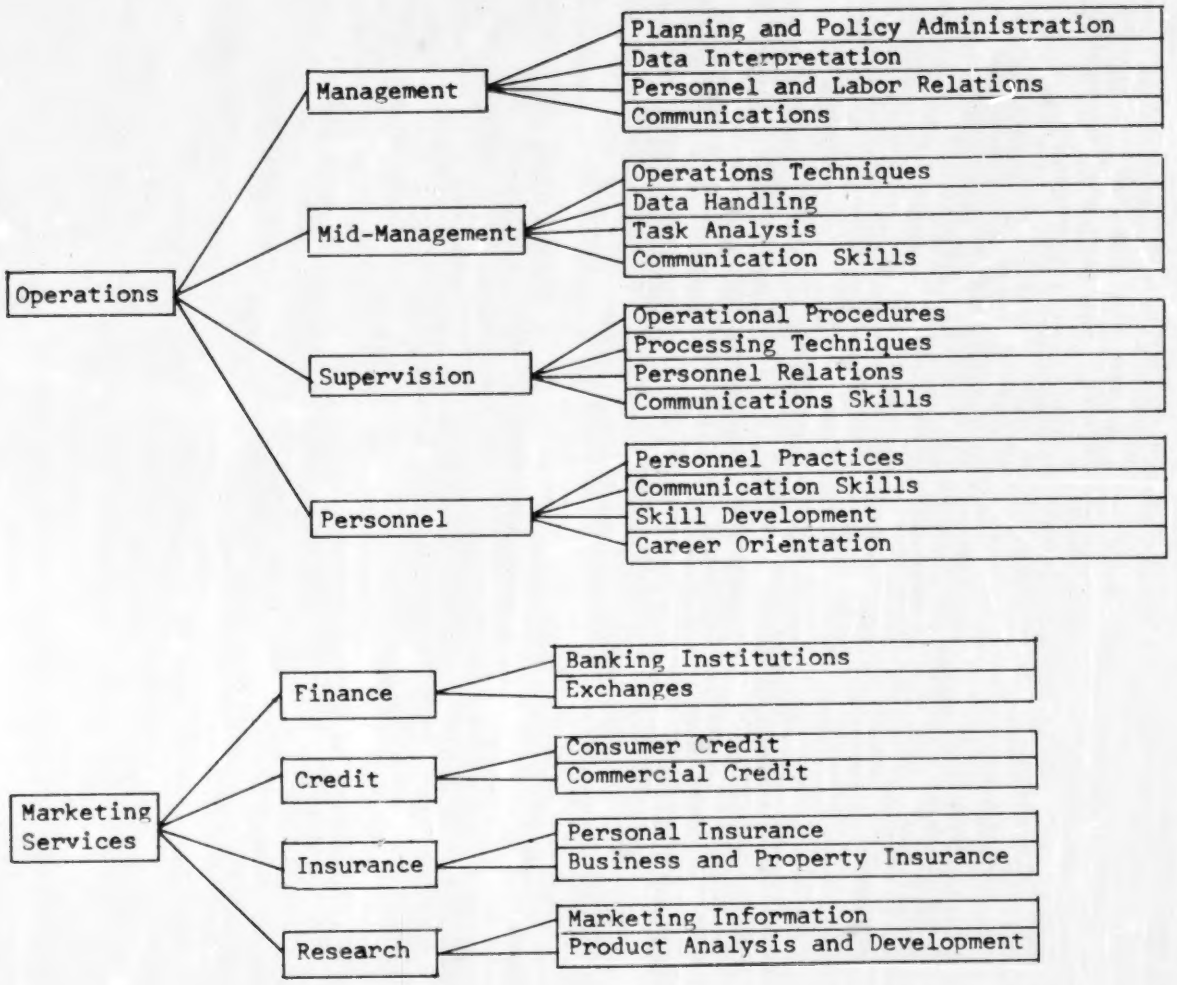
CLUSTER FOR MANUFACTURING




Research
Product
Design
Materials
Utlization
Process
Production Processes
Quality Control
Marketing
Consumer Research
Product Promotion Research
Design
Product
Model Development
Prototype Testing
Packaging
Process
Component/Material Flow Systems
Assembly Line Systems
Cybernetics
Equipment
Foundry Operations
Electromechanical Systems
Machine Operations
Distribution
Packaging
Packaging Development
Pachaging Manufacturing
Marketing
Retailing
Wholesaling
Distribution
Advertising
Product Promotion
Transportation
Air
Truck
Rail
Pipeline
Vessel
Warehousing
Packing
Storing

CLUSTER FOR
MARKETING AND DISTRIBUTION OCCUPATIONS




Operations
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Operational Procedures
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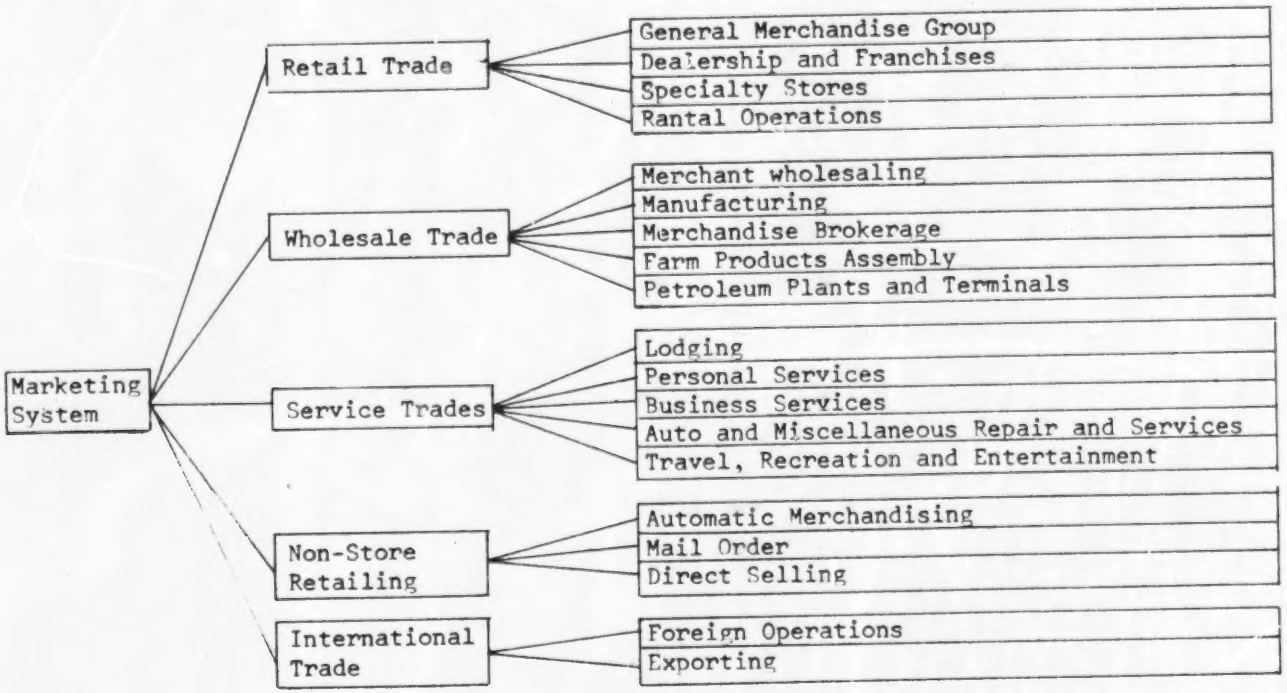
Personnel Relations
Communications Skills
Personnel
Personnel Practices
Communication Skills
Skill Development
Career Orientation

Marketing Services
Finance
Banking Institutions
Exchanges
Credit
Consumer Credit
Commercial Credit
Insurance
Personal Insurance
Business and Property Insurance
Research
Marketing Information
Product Analysis and Development


Marketing System
Retail Trade
General Merchandise Group
Dealership and Franchises
Specialty Stores
Rantal Operations
Wholesale Trade
Merchant wholesaling
Manufacturing
Merchandise Brokerage
Farm Products Assembly
Petroleum Plants and Terminals
Service Trades
Lodging
Personal Services
Business Services
Auto and Miscellaneous Repair and Services
Travel, Recreation and Entertainment
Non-Store Retailing
Automatic Merchandising
Mail Order
Direct Selling
International Trade
Foreign Operations
Exporting